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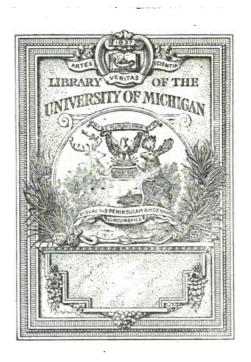
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BIENNIAL REPORT

OF THE

Dairy and Food Commissioner

OF

WISCONSIN

For the Years 1897-1898.

H. C. ADAMS,
Dairy and Food Commissioner.



MADISON

DEMOCRAT PRINTING COMPANY, STATE PRINTER.
1899.

WISCONSIN DAIRY AND FOOD COMMISSION.

H. C. ADAMS,	-		-	•		-		•	Commissioner.
W. W. CHADWICK,		-	-		-		•	-	Dairy Expert.
A. S. MITCHELL,	-		-	-		-		-	Chemist.
N. J. FIELD,	-		-		-		-	-	Dairy Inspector.
FLORENCE Q. NO	RTON	,	-		Ster	ogr	aphe	and	Confidential Clerk.

LETTER OF TRANSMITTAL.

MADISON, WIS., Oct. 1, 1898.

To his Excellency, EDWARD SCOFIELD,

Governor of the State of Wisconsin:

I have the honor, in compliance with chapter 109, laws of 1893, to submit herewith the report of this commission for the two years ending September 30, 1898.

H. C. Adams, Commissioner.

Dairy and Food Laws

OF WISCONSIN.

OF THE OFFICE AND DUTIES OF THE DAIRY AND FOOD COMMISSIONER.

- 1. Appointment, term and compensation. [Sec. 1, ch. 452, laws of 1889.] The office of dairy and food commissioner for the state of Wisconsin, is hereby created. Such commissioner shall be appointed by the governor, by and with the advice and consent of the senate, and his term of office shall be for two years from the date of his appointment, and until his successor is appointed and qualified; provided, that the term of office of the commissioner first appointed under this act shall expire on the first Monday in February, 1891; and vacancies occurring in the office for any cause shall be filled by appointment for the balance of the unexpired term. The salary of the commissioner shall be twenty five hundred dollars per annum and his necessary and actual expenses incurred in the discharge of his official duties.
- 2. Assistants, their qualifications and salaries. [Sec. 2, ch. 452, laws of 1889.] Such commissioner may, with the consent and advice of the governor, appoint two assistants, each of acknowledged standing, ability and integrity, one of whom shall be an expert in the matter of dairy products and the other of whom shall be a practical analytical

chemist. The salaries of such assistants shall not exceed eighteen hundred dollars each per annum and their necessary and actual expenses incurred in the discharge of their official duties.

Ch. 355, of the laws of 1897, fixes the salary of the assistant commissioner at \$1,600; of the chemist at \$1,800, and of the commissioner's stenographer and confidential clerk at \$900.

- 3. Agent to inspect dairies, etc. [Ch. 328, laws of 1897.] The dairy and food commissioner, with the approval of the governor, shall have authority to appoint an agent for the inspection of milk dairies, factories and creameries, and to assist in the work of the dairy and food commission at such times, and for such periods of time as may be required in the enforcement of the dairy and food laws of the state. The compensation of such agent shall be three dollars per day for each day of actual service, and his expenses, to be paid by the state.
- 4. Commissioner's duties. [Sec. 3, ch. 452, laws of 1889.] It shall be the duty of the commissioner to enforce all laws that now exist, or that may hereafter be enacted in this state, regarding the production, manufacture or sale of dairy products, or the adulteration of any article of food or drink or of any drug; and personally or by his assistants to inspect any article of milk, butter, cheese, lard, syrup, coffee or tea, or other article of food or drink or drug, made or offered for sale within this state which he may suspect or have reason to believe to be impure, unhealthful, adulterated or counterfeit, and to prosecute, or cause to be prosecuted, any person or persons, firm or firms, corporation or corporations engaged in the manufacture or sale of any adulterated or counterfeit article or articles of food or drink or drug, contrary to the laws of this state.
- 5. His powers Sealing samples Refusing to sell for analysis. [Sec. 4, ch. 452, laws of 1889.] Said commissioner or any assistant shall have power in the perform-

ance of his official duties to enter into any creamery, factory, store, salesroom or other place or building where he has reason to believe that any food or drink or drug is made, prepared, sold or offered for sale, and to open any cask, tub, package or receptacle of any kind containing or supposed to contain, any such article, and to examine or cause to be examined and analyzed the contents thereof; and the commissioner or any of his assistants may seize or take any article of food or drink or drug for analysis, but if the person from whom such sample is taken shall request him to do so, he shall at the same time, and in the presence of the person from whom such property is taken. securely seal up two samples of the article seized or taken. the one of which shall be for examination or analysis under the direction of the commissioner, and the other of which shall be delivered to the person from whom the articles were taken. And any person who shall obstruct the commissioner or any of his assistants by refusing to allow him entrance to any place which he desires to enter in the discharge of his official duty, or refuses to deliver to him a sample of any article of food or drink or drug made, sold, offered or exposed for sale by such person, when the same is requested and when the value thereof is tendered, shall be deemed guilty of a misdemeanor punishable by a fine of not exceeding twenty-five dollars for the first offense and not exceeding five hundred dollars or less than fifty dollars for each subsequent offense.

Questions of evidence us to sealing and analysis. If there is contradictory evidence concerning the sufficiency of the seal of a sample, and the credibility of the witnesses for the prosecution is submitted to the jury, the defendant is not injured. If there is evidence that a few drops of carbolic acid was added to a sample of milk, and it is submitted to the jury as a question of fact whether this would change the character of the milk, make the analysis impossible or difficult, or in any way injuriously affect the sample for the purpose of analysis, the defendant has no cause of complaint. Commonwealth v. Spear, 143 Mass., 172.

It is observed of a similar statute that it is intended to secure a fair examination and analysis, by providing the defendant with the means of

making an analysis of a portion of the same specimen which the state has analyzed. If the sample is not saved, or not saved in proper condition, he has no means of showing that his evidence, if any he has as to the quality of the milk, applies to that with reference to which the government witnesses have testified. It cannot be said that a portion reserved is sealed, within the meaning of the statute, when wax is merely placed on the top of the cork, and not extended over the mouth of the bottle, thus making it airtight, if it is shown that the character of the milk will be affected by the air. Commonwealth v. Lockhardt, 144 Mass., 132.

Where the article analyzed has not been taken under the statute the competency of evidence is to be determined by the common law, and the testimony of any person who had sufficient skill to analyze it, and who has analyzed some which was proven to have been sold by the defendant, is admissible. Commonwealth v. Holt, 146 Mass., 38.

6. District attorneys to assist—Disposition of fines. [Sec. 5, ch. 452, laws of 1889.] It shall be the duty of the district attorney in any county of the state, when called upon by the commissioner or any of his assistants, to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act; and all fines and assessments collected in any prosecution begun or caused to be begun by said commissioner or his assistants shall be paid into the state treasury.

Counsel may be employed. See paragraph 24 which also provides that district attorneys shall assist the commissioner.

7. Analysis of articles—Assistance at institutes, etc. [Sec. 6. ch. 452, laws of 1889.] With the consent of the governor, the state board of health may submit to the commissioner, or to any of his assistants, samples of water or of food or drink or drugs, for examination or analysis, and receive special reports showing the result of such examination or analysis. And the governor may also authorize the commissioner or his assistants, when not otherwise employed in the duties of their offices, to render such assistance in the farmers' institutes, dairy and farmers' conventions, and the agricultural department of the university, as shall by the authorities be deemed advisable.

- 8. Payment of salaries and expenses. [Sec. 7, ch. 452, laws of 1889.] The salaries of the commissioner and his assistants shall be paid out of the state treasury in the same manner as the salaries of other officers are paid, and their official expenses shall be paid at the end of each calendar month upon bills duly itemized and approved by the governor, and the amount necessary to pay such salaries and expenses is hereby appropriated annually.
- 9. Laboratory, and materials for. [Sec. 8, ch. 452, laws of 1889.] The commissioner may, under the direction of the governor, fit up a laboratory, with sufficient apparatus for making the analysis contemplated in this act, and for such purpose the sum of fifteen hundred dollars, or so much thereof as may be necessary, is hereby appropriated, and for the purpose of providing materials and for other necessary expenses connected with the making of such analyses, there is also hereby appropriated so much as may be necessary, not exceeding six hundred dollars annually. The appropriations provided for in this section shall be drawn from the state treasury upon the certificates of the governor.
- 10. Biennial report. [Sec. 9, ch. 452, laws of 1889, as amended by ch. 109, laws of 1893.] Said commissioner shall be furnished a suitable office in the capitol at Madison, and shall make a biennial report to the governor, which shall contain an itemized account of all expenses incurred and fines collected, with such statistics and other information as he may regard of value; and with the consent of the governor not exceeding twenty thousand copies thereof, limited to three hundred pages, may be published biennially, as other official reports are published, and of which five thousand copies shall be bound in cloth.

Stationery. Ch. 197, laws of 1895, authorizes the commissioner to obtain stationery for the use of his office.

SALE OF IMPURE MILK.

11. Penalty for. [Sec. 1, ch. 425, laws of 1889, as amended by ch. 106, laws of 1897.] Any person who shall sell or offer for sale, or furnish or deliver, or have in possession, with intent to sell or offer for sale or furnish or deliver to any creamery, cheese factory, corporation, person or persons whatsoever, as pure, wholesome and unskimmed, any unmerchantable, adulterated, impure, or unwholesome milk, shall, upon conviction thereof, be punished by a fine of not less than twenty-five nor more than one hundred dollars for each and every offense.

Validity of statute. A New York law (ch. 183 of 1885, ch. 202 of 1884), providing that "no person or persons shall sell, supply or bring to be manufactured, to any butter or cheese manufactory, any milk diluted with water, or any unclean, impure, unhealthy, adulterated or unwholesome milk," has been sustained as a valid exercise of legislative power. People v. West, 106 N. Y., 293.

Construction — Indictment. The New York law does not make fraudulent intent a necessary ingredient of the offense and it would not be a reasonable construction of it to apply it to a dairyman who owns and conducts a butter or cheese factory for the manufacture of those articles from milk furnished exclusively by himself, from his own cows. If the defendant is such a person, these facts are matter of defense, and their existence need not be negatived on the face of the indictment. People v. West, 106 N. Y., 293.

Under a Massachusetts law imposing a penalty for selling or offering to sell "adulterated milk, or milk to which any foreign substance has been added," it is immaterial whether the substance added is injurious or not. The indictment need not allege the quantity of such substance. Commonwealth v. Schaffner, 16 Northeast. Rep., 289, 146 Mass., 512.

Under an act which prohibits the sale of milk which is not of a good, standard quality, the fact that the milk was delivered under a contract to furnish the person who bought it with the milk of one dairy, is not a defense if that furnished was not of such quality. The contract would be held to contemplate milk which should be bought and sold. Commonwealth v. Holt, 14 Northeast. Rep., 930, 146 Mass., 38.

Intent to sell, evidence of. Where one is charged with having in his possession, with intent to sell, milk which is not of a good, standard quality, the fact that he was upon a wagon which had his name painted on it, and that therein were cans of milk, and that a sample was given from one of them to one employed by the milk inspector for analysis, is competent evidence go to the jury upon the question of his intent. Commonwealth v. Rowell, 15 Northeast. Rep., 154, 146 Mass., 128.

Effect of the act of 1889 upon previous laws. It seems reasonably clear that sec. 1, of ch. 425, laws of 1889, as amended by ch. 106, laws of 1897, paragraph 11, supersedes sec. 1, of ch. 157, laws of 1887, as to the offense of selling diluted, impure and unclean milk. Both the acts referred to cover the provisions of sec. 4607, R. S., and hence that section is not in force.

What is a sale. A restaurant keeper who sells milk to be drunk by his guests on his premises is liable if the milk so sold is not of the prescribed quality. Commonwealth v. Vieth, 155 Mass., 442. See note to paragraph 17. Milk bought by a guest and delivered to him as part of his meal is as much a sale as if a specific price had been put upon it, or it had been bought or paid for by itself. Commonwealth v. Warren, 160 Mass., 533.

.12. Standard for pure. [Sec. 2, ch. 425, laws of 1883.] In all prosecutions or other proceedings under this or any other law of this state relating to the sale or furnishing of milk, if it shall be proven that the milk sold or offered for sale, or furnished or delivered, or had in possession with intent to sell or offer for sale, or to furnish or deliver as aforesaid, as pure, wholesome and unskimmed, contains less than three per centum of pure butter fat, when subjected to chemical analysis or other satisfactory test, or that it has been diluted or any part of its cream abstracted, or that it or any part of it was drawn from cows known to the person complained of to have been within fifteen days before or four days after parturition, or to have any disease or ulcers or other running sores, then and in either case the said milk shall be held, deemed and adjudged to have been unmerchantable and adulterated, impure or unwholesome, as the case may be.

Validity of provision as to standard of purity. The supreme court of New York has ruled that a statute which provides that milk which contains less than three per centum of fat shall be declared adulterated is un-

constitutional. The ground upon which this was held was that the statute deprived the defendant of his liberty and property without due process of faw, in that it barred him of the right upon the trial of the accusation against him to have the issue determined according to what might be the proof, and compelled him to submit to the statutory declaration thereof, without regard to the truth. People v. Cipperly, 37 Hun, 317. This decision was not unanimous, and on appeal was reversed by the court of appeals, without opinion, and on the grounds given by the dissenting judge of the supreme court. People v. Cipperly, 101 N. Y., 634.

A law of New Hampshire (ch. 42, laws of 1883), prohibited the sale of adulterated milk, or milk to which water or any foreign substance has been added, or, as pure, milk from which the cream or a part thereof has been removed. It authorized inspectors of milk to take samples and cause the same to be analyzed, and expressed that in all prosecutions under it if the milk is shown by analysis to contain more than eighty-seven per cent. of watery fluid, or less than thirteen per cent. of milk solids, it shall be deemed for the purposes of the statute to be adulterated. It was contended that the clause fixing the standard was unconstitutional. In answer the court said: "The statute tends to discourage the breeding of a certain class of cattle for the supply of the milk market. The difficulty of guarding against the adulteration of milk may have influenced the legislature in fixing a standard of richness. Practically it makes no difference milk is diluted after it is drawn from the cow, or whether it is W13 made watery by giving her such food as will produce milk of an inferior quality, or whether the dilution, regarded by the legislature as excessive, arises from the nature of a particular animal, or a particular breed of cattle. The sale of such milk to unsuspecting consumers, for a price in excess of its value, is a fraud which the statute was designed to suppress. It is a valid exercise by the legislature of the police power for the prevention of fraud, and protection of the public health, and as such is constitutional." State v. Campbell, 64 N. H., 402.

In Rhode Island a similar provision has been sustained against an objection to its validity on the ground that it virtually confined the testimony to the analysis of the samples taken by the inspector, which samples were destroyed in making the analysis, so that the testimony could not be controverted. The court, however, was of the opinion "that the testimony, though it may not always be practicable to controvert it directly by another analysis, can be controverted by evidence of collateral facts going to prove that the analysis is incorrect, and, therefore, that the act is not unconstitutional for the reason alleged." State v. Groves, 15 R. I., 208, 1 Atl. Rep., 384. Shivers v. Newton, 45 N. J. L., 469, is to much the same effect.

Intent immaterial. The doing of the act condemned by the law constitutes the offense, if it is silent as to the knowledge or intent of the person who is charged with violating it. People v. Kibler, 106 N. Y., 321, 12 N. E. Rep., 795.

- 13. Proof of adulteration, how made. [Sec. 2, ch. 157, laws of 1887, as amended by ch. 344, laws of 1889.] Proof of adulterations and skimming may be made with such standard tests and lacometers as are used to determine the quality of milk, or by chemical analysis.
- 14. Sale, etc., of milk or cream containing antiseptics injurious to health. [Ch. 168, laws of 1895.] Any person who shall sell or offer for sale, or consign, or have in his possession with intent to sell to any person or persons, any milk, cream, butter, cheese, or other dairy products, or who shall deliver to any creamery or cheese factory, milk or cream to be manufactured into butter or cheese, to which boracic acid, salicylic acid, or compounds containing them, or other antiseptics injurious to health, have been added, shall be deemed guilty of a misdemeanor, and upon conviction thereof be punished by a fine of not less than twenty-five nor more than one hundred dollars for each and every offense.

Intent to sell. See note to paragraph 11.

IMITATION BUTTER AND CHEESE.

15. Filled cheese. [Sec. 1, ch. 30, laws of 1895.] No person, by himself or by his agents or servants, shall manufacture, or shall buy, sell, offer, ship, consign, expose or have in his possession for sale any cheese manufactured from or by the use of skimmed milk to which there has been added any fat which is foreign to such milk.

- 16. Size of skimmed-milk cheese. [Sec. 2, ch. 30, laws of 1895.] No person, by himself or by his agents or servants, shall manufacture, or shall buy, sell, offer, ship, consign, expose or have in his possession for sale, within this state, any skimmed milk cheese, or cheese manufactured from milk from which any of the fat originally contained therein has been removed, except such cheese is ten inches in diameter and nine inches in height.
 - 17. Imitation butter. [Sec. 3, ch. 30, laws of 1895.] No person, by himself or by his agents or servants, shall render or manufacture, sell, ship, consign, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or partly out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same. and without the admixture or addition of any fat foreign to said milk or cream, which shall be in imitation of vellow butter produced from pure unadulterated milk or cream of the same, with or without coloring matter; provided, that nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter.

Validity. The foregoing section is almost an exact copy of sec. 1 of ch. 5, acts of Massachusetts, 1891. The words, "ship, consign," "and without the admixture or addition of any fat foreign to said milk or cream," found in this section, are not in the Massachusetts act. In Commonwealth v. Huntley, 156 Mass., 236, 30 N. E. Rep., 1127, the question of the validity of the act referred to came before the court. It was an agreed fact that the eleomargarine sold by the defendant was brought to Massachusetts from another state, and was sold there in the original package, and assumed by the court that it was wholesome, palatable and nutritious. The validity of the act, so far as the state constitution was concerned, does not appear to have been questioned. On this branch of the subject, the court quoted from the opinion of the court of appeals of Missouri in the case of State v. Addington, 12 Mo. App., 214, 223, language which has been approved by the supreme court of Pennsylvania in Powell

v. Commonwealth, 114 Penn. St., 265, 295, a case which was carried to the supreme court of the United States, and there affirmed, Powell v. Pennsylvania, 127 U.S., 678: "If an article of food is of such a character that few persons will eat it knowing its real character; if, at the same time, it is of such a nature that it can be imposed upon the public as an article of food which is in common use, and against which there is no prejudice; and if, in addition to this, there is probable ground for believing that the only way to prevent the public from being defrauded into purchasing the counterfeit article for the genuine is to prohibit altogether the manufacture and sale of the former, then we think such a prohibition may stand as a reasonable police regulation, although the article prohibited is in fact innocuous, and although its production might be found beneficial to the public, if in buying it they could distinguish it from the production of which it is the imitation." The Massachusetts court also said that "in New Hampshire, Missouri, Minnesota, New York, New Jersey, and Pennsylvania, statutes prohibiting the sale of oleomargarine made in imitation of butter have been upheld by the courts as valid. State v. Marshall, 64 N. H., 549; State v. Addington, 77 Mo., 110, 12 Mo. App., 214; Butler v. Chambers, 36 Minn., 69; People v. Arensberg, 105 N. Y., 123; State v. Newton, 21 Vroom (50 N. J. L.), 534; Powell v. Commonwealth, 114 Penn. St., 265." To the same effect are McAllister v. State, 72 Md., 390; Weideman v. State, 56 N. W. Rep., 688; State ex rel. v. Horgan, 55 Minn., 183. The doubtful question in the Massachusetts case arose under the provision of the constitution of the United States giving to congress power to regulate commerce among the several states. On this point, inasmuch as the statute only applied to oleomargarine which was deceptive, and authorized the sale, under restrictions, of that which was not deceptive, and did not forbid the transportation or storage of the former, a majority of the court held it valid. Commonwealth v. Huntley, 156 Mass., 236, 30 N. E. Rep., 1127.

The ruling of the United States supreme court. The validity of the Massachusetts statute, solfar as it was affected by the clause of the federal constitution giving congress power over commerce, came before the supreme court of the United States in Plumley v. Massachusetts, 155 U. S., 461. It was there held, by a majority of the judges (three dissenting), that the federal statute imposing special taxes upon manufacturers and wholesale and retail dealers in oleomargarine does not restrict the power of the states over the manufacture and sale thereof within their respective limits. "The taxes prescribed by that act were imposed for national purposes, and their imposition did not give authority to those who paid them to engage in the manufacture or sale of oleomargarine in any state which lawfully forbade such manufacture or sale, or to disregard any regulation which a state might lawfully prescribe in reference to that article. . . .

Nor was the act of congress relating to oleomargarine intended as a regulation of commerce among the states. Its provisions do not have special application to the transfer of oleomargarine from one state of the union to another. They relieve the manufacturer or seller, if he conforms to the regulations prescribed by congress or by the commissioner of internal revenue, under the authority conferred upon him in that regard, from penalty or punishment so far as the general government is concerned, but they do not interfere with the exercise by the states of any authority they possess of preventing deception or fraud in the sales of property within their respective limits."

The opinion of the court then proceeds to discuss the validity of the statute of Massachusetts as affected by the commerce clause of the federal. constitution. "It will be observed," said Justice Harlan, "that the statute of Massachusetts which is alleged to be repugnant to" that clause "does not prohibit the manufacture or sale of all oleomargarine, but only such as is colored in imitation of yellow butter produced from pure unadulterated milk or cream of such milk. If free from coloration or ingredient that causes it to look like butter, the right to sell it in a separate and distinct form, and in such manner as will advise the consumer of its real character,' is neither restricted nor prohibited. It appears, in this case, that oleomargarine, in its natural condition, is of a 'light yellowish color,' and tha the article sold by the accused was artificially colored 'in imitation of yellow butter.' Now the real object of coloring oleomargarine so as to make it look like genuine butter is that it may appear to be what it is not, and thus induce unwary purchasers, who do not closely scrutinize the label upon the package in which it is contained, to buy it as and for butter produced from unadulterated milk or cream from such milk. The suggestion that oleomargarine is artifically colored so as to render it more palatable and attractive can only mean that customers are deluded, by such coloration, into believing that they are getting genuine butter. If any one thinks that oleomargarine, not artificially colored so as to cause it to look like butter, is as palatable or wholesome for purposes of food as pure butter, he is as, already observed, at liberty under the statute of Massachusetts to manufacture it in that state or to sell it there in such manner as to inform the customer of its real character. He is only forbidden to practice, in such matters, a fraud upon the general public. The statute seeks to suppress false pretenses and to promote fair dealing in the sale of an article of food. It compels the sale of oleomargarine for what it really is, by preventing its sale for what it is not."

After reviewing many of the cases cited by the supreme court of the United States and relied upon by counsel for the defendant to support his contention that the statute was void, the opinion uses this language: "In none of the above cases is there to be found a suggestion

or intimation that the constitution of the United States took from the states the power of preventing deception and fraud in the sale, within their respective limits, of articles in whatever state manufactured, or that that instrument secured to any one the privilege of committing a wrong against society. . . . If there be any subject over which it would seem the states ought to have plenary control, and the power to legislate in respect to which it ought not to be supposed was intended to besurrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products. Such legislation may, indeed, indirectly or incidentally affect trade in such products transported from one state to another state. But that circumstance does not show that laws of the character alluded to are inconsistent with the power of congress to regulate commerce among the states. For, as said by this court in Sherlock v. Alling, 93 U.S., 99, 103: 'In conferring upon congress the regulation of commerce, it was never intended to cut the states off from legislating on all subjects relating to the health, life and safety of their citizens, though the legislation might indirectly affect the commerce of the country. Legislation, in a great variety of ways, may affect commerce and persons engaged in it without constituting a regulation of it within the meaning of the constitution. . . . And it may be said generally, that the legislation of a state. not directed against commerce or any of its regulations, but relating to the rights, duties, and liabilities of citizens, and only indirectly and remotely affecting the operations of commerce, is of obligatory force upon citizens within its territorial jurisdiction, whether on land or water, or engaged in commerce, foreign or interstate, or in any other pursuits."

The opinion of the court then proceeds to point out that the case of Leisy v. Hardin, 135 U.S., 100, in which it was held that ardent spirits, distilled liquors, ale and beer, were subjects of exchange, barter and traffic, and, being articles of commerce, their sale while in the original packages in which they are carried from one state to another, could not. without the assent of congress, be forbidden by the state into which they were transported, was not conclusive of the case before it, because the articles sold in that case were what they purported to be. The opinion of the majority of the court on the Massachusetts statute con-"We are of opinion that it is within the power of a state to exclude from its markets any compound manufactured in another state, which has been artificially colored or adulterated so as to cause it to look like an article of food in general use, and the sale of which may, by reason of such coloration or adulteration, cheat the general public into purchasing that which they may not intend to buy. The constitution of the United States does not secure to any one the privilege of defrauding the public. The deception against which the statute of Massachusetts is

aimed is an offense against society; and the states are as competent to protect their people against such offenses or wrongs as they are to protect them against crimes or wrongs of more serious character. And this proction may be given without violating any right secured by the national constitution, and without infringing the authority of the general government. A state enactment forbidding the sale of deceitful imitations of arricles of food in general use among the people does not abridge any privilege secured to citizens of the United States, nor, in any just sense, interfere with the freedom of commerce among the several states."

Expose for sale. Under the English statute regulating the sale of margarine it has been held that margarine kept for sale upon the counter of a shop, but behind a screen hiding it from the view of customers, is not exposed for sale, Crane v. Lawrence, 25 Queen's B. Div., 152; and that parcels of margarine placed upon a counter or shelf, in view of customers, are exposed for sale, although so wrapped in paper that the margarine cannot be seen. Wheat v. Brown, [1892] 1 Queen's B., 418.

In Massachusetts, from whence this section was borrowed (see first sentence of note), the court has said, in a case decided in 1893, that whenever goods are placed for convenient delivery upon expected sales, they are put out and in one sense exposed for sale. But in our opinion, the words are not so used in the statute under consideration. The prohibited articles are designed and adapted to deceive the eye, and because their appearance is likely to induce those who see them to buy them as the genuine of butter of which they are in imitation, there is special reason for prohibiting their exposure to view. It was held that oleomargarine colored in imitation of yellow butter and kept for sale in a shop, so long as it is in a closed and covered refrigerator and cannot be seen by customers, is not exposed for sale, notwithstanding there is a sign in the shop to the effect that oleomargarine is sold there. Commonwealth v. Byrnes, 158 Mass., 172.

Sale, what is. A restaurant keeper who furnishes oleomargarine to a customer, as part of a meal ordered by the latter, sells the same, notwithstanding the meal is paid for as a whole, and the oleomargarine is not eaten, but carried away. Commonwealth v. Miller, 131 Pa., 118. See note to paragraph 11.

A foreign manufacturer who puts up oleomargarine in packages evidently adopted for and intended to meet the requirements of an unlawful retail trade in another state, sending them to an agent there for sale to consumers, is not engaged in interstate commerce, but in an effort to carry on a forbidden business. Commonwealth v. Paul, 170 Pa., 284.

18. Sale of. [Sec. 4, ch. 30, laws of 1895.] It shall be unlawful for any person to sell or offer for sale to any person who asks, sends or inquires for butter, any oleomarga-

rine, butterine or any substance made in imitation or semblance of pure butter not made entirely from the milk of cows, with or without coloring matter.

19. Notice of sale of oleomargarine, etc. [Sec. 5, ch. 30, laws of 1895.] It shall be unlawful for any person to expose for sale oleomargarine, butterine, or any similar substance not marked and distinguished on the outside of each tub, package or parcel thereof by a placard with the word "oleomargarine," and not having also upon every open tub, package or parcel thereof a placard with the word "oleomargarine," such placard in each case to be printed in plain, uncondensed gothic letters not less than one inch long, and such placard shall not contain any other words thereon.

Expose for sale. See note to paragraph 17.

Provision valid. See note to paragraph 17. A statute which provides that no person shall sell any lard, or any article intended for use as lard, which contains any ingredient but the pure fat of healthy swine, under any label bearing the words "refined," "pure," "family," unless every package in which the article is sold is marked "compound lard," has been sustained as valid by the supreme court of Iowa. State v. Snow, 47 N. W. Rep., 777.

In Minnesota a statute which makes it a misdemeanor to manufacture for sale within that state, or to sell or offer to do so, baking powder containing alum, unless each package thereof is labelled, "this baking powder contains alum," has been sustained. Stoltz v. Thompson, 46 N. W. Rep., 410.

In Ohio it has been held that it is "within the undoubted power of the legislature to prohibit the sale of substances having the semblance of butter or cheese, but not wholly made from pure cream or milk, unless each package of such substance should have printed, stamped or marked thereon, in the manner prescribed by the statute, the name of each article used in, or entering into, the composition of such substance, and this power is possessed by the legislature over the sale of articles protected by letters patent as well as of those not protected." Palmer v. State, 39 Ohio St., 237.

20. Same, notice, how given. [Sec. 6. ch. 30, laws of 1895.] It shall be the duty of every person who sells oleomargarine, butterine, or any similar substance, from any dwelling, store, office or public mart, to have conspicuously

posted thereon the placard or sign, in letters not less than four inches in length, "oleomargarine sold here," or "butterine sold here." Such placard shall be approved by the dairy and food commissioner of the state of Wisconsin.

21. Notice of sale from vehicles. [Sec. 7, ch. 30, laws of 1895.] It shall be unlawful for any person to peddle, sell or deliver from any cart, wagon or other vehicle, upon the public streets or ways, oleomargarine, butterine, or any similar substance, not having on the outside of both sides of said cart, wagon or other vehicle the placard in uncondensed gothic letters, not less than three inches in length, "licensed to sell oleomargarine."

This section is not in the exact words of sec. 4, ch. 412, acts of Mass., 1891, though it is modeled after it. That act does not use the words "on the outside of both sides," etc., but contained the phrase "on both sides of the vehicle." It was held that placing the placards on the inside of the cover of the wagon, which was open at both ends, was not a compliance with the law. It was also ruled that the statute was not in conflict with the act of congress authorizing the licensing of the sale of eleomargarine. Commonwealth v. Crane, 158 Mass., 218, 33 N. E. Rep., 388.

22. Notice to guests at hotels, etc. [Sec. 8, ch. 30, laws of 1895.] It shall be unlawful for any person to furnish, or caused to be furnished, in any hotel, boarding house, restaurant, or at any lunch counter, oleomargarine, butterine or any similar substance to any guest or patron of said hotel, boarding house, restaurant, or lunch counter, without first notifying such guest or patron that the substance so furnished is not butter.

See notes to paragraphs 17, 19, 21. This section is similar to sec. 5, ch. 412, Mass. acts, 1891. Notice given by printed signs and on the bills of fare satisfies the statute; it need not be given, either orally or in writing, to each guest on every occasion when he is furnished with oleomargarine or butterine in the stead of butter. Commonwealth v. Stewart, 159 Mass., 113.

23. Penalties. [Sec. 9, ch. 30, laws of 1895.] Any person who shall violate any of the provisions of this act shall

be guilty of a misdemeanor, and upon conviction thereof shall be punished for the first offense by a fine of not less than fifty dollars nor more than five hundred hundred dollars; and upon conviction of any subsequent offense shall be punished by a fine of not less than one hundred dollars or more than five hundred dollars, or by imprisonment in the county jail of not less than ten days nor more than sixty days, or by both such fine and imprisonment, at the discretion of the court.

- 24. Duty of district attorneys Special counsel. [Sec. 10, ch. 30, laws of 1895.] It shall be the duty of the district attorney in any county of the state, when called upon by the dairy and food commissioner of this state, or any of his assistants, to render any legal assistance in his power to execute, and to prosecute the cases arising under the provisions of this act; and the dairy and food commissioner shall have power to appoint, with the approval of the governor, special counsel to prosecute or to assist in the prosecution of any case arising under the provisions of this act.
- 25. Butter and cheese, use of, in state institutions. [Sec. 7, ch. 165, laws of 1891.] No butter or cheese not made wholly and directly from pure milk or cream, salt and harmless coloring matter shall be used in any of the charitable or penal institutions of the state.
- 26. Penalty. [Sec. 8, ch. 165, laws of 1891.] Any person or persons violating any of the provisions or sections of this act, shall upon conviction thereof, be fined not less than twenty-five nor more than fifty dollars for the first offense, or for each subsequent offense not less than fifty nor more than one hundred dollars, or be imprisoned in the county jail not less than ten nor more than ninety days or both.

Sec. 9, ch. 165, 1891, is repealed by ch. 189, 1897, and the other sections of the act of 1891 are believed to be superseded by ch. 228, 1893, paragraphs 27-32.

BRANDING CHEESE, ETC.

- 27. Sale of falsely branded. [Sec. 1, ch. 228, laws of 1893.] No person shall offer for sale, sell, ship or consign cheese labeled with a false brand or label as to the quality of the article.
- 28. Uniform brand. [Sec. 2, ch. 228, laws of 1893.] The state dairy and food commissioner is hereby authorized and directed to issue to the cheese manufactories of the state, upon proper application therefor and under such regulations as to the custody and use thereof as he may prescribe, a uniform stencil or brand, bearing a suitable device or motto and the words "Wisconsin full cream cheese."
- 29. Brand, how used Registration of factories. [Sec. 3, ch. 228, laws of 1893.] Every brand issued shall be used upon the side of the cheese on the bandage thereof, also upon the package containing the same, and shall bear a different number for each separate manufactory, and the commissioner shall keep a book in which shall be registered the name, location and number of each manufactory using the said brand, and the name or names of the persons at each manufactory authorized to use the same.
- 30. Fraudulent use of brand. [Sec. 4, ch. 228, laws of 1893.] It shall be unlawful to use or permit such brand to be used upon any other than full cream cheese, or package containing the same.
- 31. Brand for skimmed cheese. [Sec. 5, ch. 228, laws of 1898.] Every person who shall, at any cheese factory in the state, manufacture skimmed cheese, shall distinctly and durably stamp upon each and every such cheese, and upon the box, the words "Wisconsin skimmed cheese." All cheese not manufactured as in sections 1, 2, 3 and 4, of this act, shall be deemed to be skimmed cheese under the provisions of this act. The brand herein provided by this

section of this act, for designating the grade and quality of cheese provided by this section shall be such as to produce an impression not less than three inches in width and five inches in length, and shall be in full-faced capital letters of as large size as the space hereby provided for will permit, and the whole to be included within a plain, heavy border. Ordinary stamping ink. either red, green or violet in color, and of such composition as not to be easily removed or wholly obliterated by moisture, shall be used in stamping as provided for by this section.

So far as the act of 1893 relates to branding skimmed cheese, it is probably superseded by that part of ch. 30, 1895, embodied in paragraph 16. The provisions of the act of 1893, relating to branding full cream cheese, are in force, and supersede ch. 165, 1891.

32. Penalty. [Sec. 6, ch. 228, laws of 1893, as amended by ch. 189, 1897.] Whoever violates the provisions of this act shall be deemed guilty of a misdemeanor, and for each and every package so falsely branded or omitted to be branded as herein provided, shall be punished by a fine of not less than twenty-five nor more than fifty dollars.

CLEANLINESS OF DAIRIES, FACTORIES AND CONDEM-

33. Powers of dairy and food commissioner. [Sec. 1, ch. 257, laws of 1895.] The dairy and food commissioner or his agents shall have full access and ingress to any factory or building where any product of the dairy is manufactured or stored for sale or shipment of the same, and shall be empowered to enforce such measures as may be necessary for the perfect cleanliness of said factories, buildings and surroundings, also for the cleanliness of all

the utensils necessarily used in the manufacture and general handling of the dairy product. Any person refusing the privilege of such access to the dairy and food commissioner or his agent, or opposing him in any way shall be considered as having committed a misdemeanor.

- 34. Warrant for seizure of imitation products. [Sec. 2, ch. 257, laws of 1895.] When complaint shall be made on oath to any magistrate authorized to issue warrants in criminal cases, that imitation butter or imitation cheese or any substance designed or intended to be used as a substitute for butter or cheese, is in the possession or under the control of any person or persons contrary to the provisions of law of this state, and that the complainant believes that it is concealed in any particular warehouse, store or refrigerator for mercantile purposes, the magistrate, if he be satisfied that there be cause for such belief, shall issue a warrant for such property.
- 35. Terms of the warrant. [Sec. 3, ch. 257, laws of 1895.] All such warrants shall be directed to the sheriff of the county or his deputy or to any constable of the county commanding such officer to search the house, building store or other place where the imitation butter or imitation cheese or any substance designed or intended to be used as imitation butter or cheese, for which he is required to search, is believed to be concealed, which place and property to be searched for shall be designated and described in the warrant, and to bring such property when found and the person or persons in whose possession the same shall be found before the magistrate who issued the warrant or before some other magistrate or court having cognizance of the case.
- 36. Preservation, analysis and confiscation of property [Sec. 4, ch. 257, laws of 1895.] When any officer in the execution of a search warrant under the provisions of this act shall find any imitation butter or cheese, or any substance designed or intended to be used as an imitation

for butter or cheese, and for which a search is allowed by this act, all the property so seized shall be safely kept by the direction of the court or magistrate so long as shall be necessary for the purpose of being produced as evidence on any trial; provided, that it shall be the duty of the officer who serves a search warrant issued for imitation butter or imitation cheese or any substance designed or intended to be used as imitation for butter or cheese and alleged to be in his possession or under the control of any person or persons contrary to law, to deliver to the state dairy and food commissioner, or to any person by such commissioner authorized in writing to receive the same, a true and perfect sample of each article seized by virtue of such warrant, for the purpose of having the same analyzed. sample be found to be imitation butter or imitation cheese or substance designed or intended to be used as an imitation for butter or cheese and that the same, at the time of such seizure, was in the possession or under the control of any person or persons contrary to any of the provisions or requirements of this act, then and in such case the property so seized shall be confiscated and destroyed, under the direction of the court or magistrate; otherwise the same shall be forthwith returned to the person or persons from whom it was taken.

37. Penalty. [Sec. 5, ch. 257, laws of 1895.] Any person or persons violating any of the provisions or sections of this act shall be guilty of a misdemeanor and upon conviction thereof be fined not less than twenty-five nor more than fifty dollars for the first offense, and for each subsequent offense not less than fifty nor more than one hundred dollars, or be imprisoned in the county jail not less than thirty nor more than ninety days in the discretion of the court before whom such conviction may be had.

Sec. 6, ch. 257, laws of 1895, is repealed by ch. 189, 1897.

38. Sale of unwholesome milk, etc. [Sec. 1, ch. 94, laws of 1897.] The dairy and food commissioner or his agents,

shall have full access and ingress to all premises, buildings or dairies where milk is stored, produced or handled for the city milk trade, and is hereby empowered to enforce such measures as may be necessary to prevent the sale of milk from diseased cows or from cows fed upon unwholesome food, and to require cleanliness in all barns, stables, milk houses or buildings where milk is produced or stored for the city milk trade.

- 39. Food for dairy cows, etc. [Sec. 2, ch. 94, laws of 1897.] Any person or persons owning or managing a dairy, the product of which is sold as milk for family use, shall feed his cows upon wholesome food, keep them, when housed, in clean and comfortable stables, and handle the milk with clean utensils.
- 40 Penalty. [Sec. 3, ch. 94, laws of 1897.] Any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor and, upon conviction there of, be fined not less than twenty-five nor more than one hundred dollars for the first offense, and not less than one hundred nor more than two hundred for each subsequent offense.

FRAUD IN DAIRY FACTORIES.

41. Penalty. [Sec. 1494a, R. S.] Any butter or cheese manufacturer who shall knowingly use, or allow any of his employes or any other person to use for his or their own individual benefit, any milk, or cream from the milk, brought to said butter or cheese manufacturer, without the consent of all the owners thereof, or any butter or cheese manufacturer who shall refuse or neglect to keep, or cause to be kept, a correct account (open to the inspection of any

one furnishing milk to such manufacturer) of the amount of milk daily received, or of the number of pounds of butter, and the number and aggregate weight of cheese made each day, or of the number cut or otherwise disposed of, and the weight of each, shall for each and every offense forfeit and pay a sum not less than twenty-five dollars, nor more than one hundred dollars, to be recovered in an action in any court of competent jurisdiction, one half for the benefit of the person or persons, firm or association, or their assigns, upon whom such fraud or neglect shall be committed, first having made complaint therefor, the remainder to the school fund.

ADULTERATION OF FOOD, DRUGS, LIQUORS, ETC.

42. Sale of adulterated food or drug. [Sec. 1, ch. 166, laws of 1897.] No person, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver, or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange, any drug or article of food which is adulterated within the meaning of this act.

This and the two next following sections are modeled after paragraphs 8805-8807, R. S. of Ohio, 6th ed., first enacted in that state in 1884.

43. "Drug" and "food" defined. [Sec. 2, ch. 166, laws of 1897.] The term "drug," as used in this act, shall include all medicines for internal or external use, antiseptics, disinfectants and cosmetics. The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed or compound.

- 44. Adulteration, what is. [Sec. 3, ch. 166, laws of 1897.] An article shall be deemed to be adulterated within the meaning of this act:
- (a) In the case of drugs: First, if, when sold under or by a name recognized in the United States Pharmacopoeia, it differs from the standard of strength, quality, or purity laid down in the latest current edition thereof; second, if, when sold under or by [a] name not recognized in the Pharmacopoeia, but which is found in the Pharmacopoeia of some other country, the national formulary or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in the latest current edition of such work; third, if its strength, quality or purity falls below the professed standard under which it is sold.
- (b) In the case of food: First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its strength, quality or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of or is solu under the name of another article; fifth, if it consists wholly, or in part, of a diseased, infected, decomposed. putrid, tainted or rotten animal or vegetable substance or article, whether manufactured or not; sixth, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous, injurious or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture; provided, that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles of food, if the same be distinctly labeled as mixtures or com-

pounds, and from which no necessary ingredient in its preparation is eliminated.

- 45. Canned food, how labeled. [Sec. 4, ch. 166, laws of 1897.] No person, by himself, his servant or agent or as the servant or agent of any other person, shall: First, pack, can or preserve fruits, vegetables or other articles of food; second, or sell, exchange, deliver or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange, such canned articles after January first, 1898, with the exception of goods bought from foreign countries, unless such articles be distinctly labeled with the grade or quality of the same, together with the name and address of the person, firm or corporation packing or canning or preserving the same, or the dealer who sells the same.
- Baking powder containing alum, how labelled.. [Sec. 5, ch. 166, laws of 1897.] No person, by himself, his servant or his agent or by the agent or servant of any other person, shall; First, make or manufacture baking powder or any mixture or compound intended for use as a baking powder; second, or sell, exchange, or deliver, or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange such baking powder, or any mixture or compound intended for use as a baking powder, which contains alum in any form or shape, unless the presence of the same be distinctly shown by a label on the outside and face of which is printed with black ink, in legible type, not smaller than brevier heavy gothic caps, the name and residence of the manufacturer and the following words: "This Baking Powder Contains Alum."

See note to paragraph 19.

47. Patent medicine containing poison, labeling of. [Sec. 6, ch. 166, laws of 1897.] No person by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver, or have in his posses-

sion with the intent to sell or exchange, or expose or offer for sale or exchange, any medicine known as patent or proprietary, or of which the formula is kept secret by the manufacturer, which contains morphine, strychnine, cocaine, or poisonous or narcotic alkaloid or drug in any quantities which the state board of health shall deem harmful to the life or health of the public unless the presence of the same be distinctly shown by a label upon the bottle or package and upon the outer wrapper thereof.

- 48. Penalty. [Sec. 7, ch. 166, laws of 1897.] Whoever violates any of the provisions of this act shall be guilty of a misdemeanor, and, upon conviction, shall be fined not exceeding one hundred nor less than twenty-five dollars for each and every offense.
- 49. Repealing clause. [Sec. 8, ch. 166, laws of 1897.] Section 4, chapter 248, laws of 1879; sections 1, 2, 3, 4, 5 and 6, chapter 252, laws of 1880; section 5, chapter 40, laws of 1881; section 13, chapter 167, laws of 1882, as amended by section 11, chapter 227, laws of 1895, and all acts and parts of acts inconsistent with this act shall be and the same are hereby repealed.
- 50. When to be in effect. [Sec. 9, ch. 166, laws of 1897.] This act shall take effect and be in force from and after January 1, 1898.
- 51. Adulterated honey, marking of. [Sec. 2, ch. 40, laws of 1831.] Every person, company or corporation, who shall sell or offer for sale, honey or any imitation of honey, which is adulterated with glucose, or any other substance, shall mark the package or parcel with the words "adulterated honey," as required by section one of this act.

Section 1, of chapter 40, laws of 1881, related to the manufacture of imitation butter, and provided that each firkin, tub, package or parcel thereof, should be marked on top of same in letters not less than one-half inch in length, and breadth in proportion, and in such manner that it may be plainly seen. As applied to butter the said section was repealed by chapter 361, laws of 1885. Section 3 of the act of 1881, related to imitation cheese. It was also repealed by the act of 1885.

52. Penalty. [Sec. 3, ch. 40, laws of 1881.] Any person found guilty of any violation of this act, shall for each offense be punished by imprisonment in the county jail not less than ten days nor more than six months, or by a fine of not less than ten dollars nor more than one hundred dollars, or both, in the discretion of the court.

Sec. 5, ch. 40, 1881, was repealed by sec. 8, ch. 166, 1897.

- 53. Imiattion cider vinegar. [Sec. 1, ch. 394, laws of 1891.] Every person who manufactures for sale, or offers or exposes for sale, as cider vinegar, any vinegar not the legitimate product of pure apple juice, known as apple cider, or vinegar not made exclusively of said apple cider, or vinegar into which foreign substances, drugs or acids have been introduced, as may appear by proper tests, shall be deemed guilty of a misdemeanor.
- 54. Adding injurions ingredients to vinegar. [Sec. 2, ch. 394, laws of 1891.] Every person who manufactures for sale, or offers for sale, any vinegar, found, upon proper tests, to contain any preparation of lead, copper, sulphuric acid, or other ingredient injurious to health, shall be deemed guilty of a misdemeanor.
- 55. Adulteration and false labeling of vinegar. [Sec. 3, ch. 394, laws of 1891.] No person, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver, or have in his custody or possession, with intent to sell or exchange, or expose or offer for sale or exchange, any adulterated vinegar, nor shall he label, brand or sell as cider vinegar, or as apple vinegar, any vinegar not the legitimate product of pure apple juice, or not made exclusively from apple cider.
- 56. Standard of pure vinegar, marking of. [Sec. 4, ch. 394, laws of 1891.] All vinegar shall have an acidity equivalent to the presence of not less than four per cent. by weight, of absolute acetic acid, and, in the case of cider

vinegar, shall contain in addition not less than two per cent. by weight, of cider vinegar solids upon full evaporation over boiling water at 212°; and if any vinegar contains any artificial coloring matter injurious to health, or less than the above amount of acidity, or in the case of cider vinegar, if it contains less than the above amount of acidity or of cider vinegar solids, it shall be deemed adulterated within the meaning of this act. All manufacturers of vinegar in the state of Wisconsin, and all persons who reduce or re-barrel vinegar in this state, and all persons who handle vinegar in lots of one barrel or more, are hereby required to stencil or mark in black figures at least one inch in length on the head of each barrel of vinegar bought or sold by them, the standard strength of the vinegar contained in the package or barrel, which shall be denoted by the per centum of acetic acid. And any neglect so to mark or stencil each package or barrel, or any false markings of packages or barrels, shall be deemed a misdemeanor.

It is competent for the legislature to make it a misdemeanor to add artificial coloring matter to vinegar, regardless of whether the matter added is injurious to 'the health of the consumer or not. People v. Girard, 73 Hun, (N. Y.), 457.

- 57. Penalty for violation of law. [Sec. 5, ch. 349, laws of 1891.] Whoever violates any of the provisions of this act shall be deemed guilty of a misdemeanor and shall be punished by a fine not less than ten nor more than one hundred dollars and costs.
- 58. Sale of unwholesome provisions. [Sec. 4599, R. S.] Any person who shall knowingly sell any kind of diseased, corrupted or unwholesome provisions, whether for meat or drink, without making the same fully known to the buyer, shall be punished by imprisonment in the county jail not more than six months, or by fine not exceeding one hundred dollars.

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- 59. Sale, etc., of flesh of diseased animals. [Ch. 431. laws of 1891.] Chapter 187 of the revised statutes is hereby amended by incorporating therein a section to be known as section 4607g of said revised statutes, and to read as follows: Section 4607g. It shall be unlawful for any person to sell or expose for sale, or to give away for the purpose of food, or to can or pack for the purpose of transportation and sale to other markets any unwholesome. stale, emaciated, blown, tainted, putrid or measly meat or the flesh of any diseased animal or of any animal that shall not have been slaughtered for the purpose of food, knowing or having good reason to believe that such meat is unwholesome, 'stale, emaciated, blown, tainted, putrid or measly, or that such flesh is the flesh of a diseased animal or of an animal that shall not have been slaughtered for the purpose of food. It shall be unlawful for any person or corporation owning or operating any slaughter house or packing establishment within the state of Wisconsin, to receive for the purpose of killing or to kill any diseased animal, or to render the carcass of any animal that shall have died by disease or through exposure, or that shall not have been butchered for food, knowing or having good reason to believe that such animal or animals were diseased or had died from disease or exposure, or that the same shall not have been butchered for food. Any person found guilty of any violation of this act, shall for each offense be punished by imprisonment in the county jail not less than ten days nor more than six months, or pay a fine of not less than ten dollars nor more than one hundred dollars. or both in the discretion of the court.
- 60. Coloring grain. [Sec. 4606, R. S.] Any person who shall fumigate any barley, wheat, or other grain, by the use of sulphur or other substance, or shall in any way or by the use of any chemical, material or process, affect the color or healthfulness of such grain, or who shall sell or offer for sale any such grain, knowing that the same

has been so fumigated, or the color or healthfulness thereof so affected, shall be punished by imprisonment in the county jail not more than one month, or by the not exceeding fifty dollars.

Affect the color. See note to paragraph 56.

REPORT OF THE COMMISSIONER.

The work of the dairy and food commission for the two years ending September 30, 1898, has comprised an examination of a considerable portion of the factories and creameries of the state, an inspection of dairies producing milk for city consumption, the education of manufacturers, wholesale and retail dealers in food products as to the meaning of the pure food law of 1897, and the prosecution of violators of the dairy and food laws of the state.

There has always been a strong sentiment in Wisconsin in behalf of legislation designed to secure purity in food products. That sentiment has been greatly strengthened in recent years. Legislation against imitation of dairy products has been of great value to the dairy and agricultural interests of the state as well as to the general consumer of milk, butter and cheese. The friends of the dairy interest have not at any time demanded unreasonable legislation in their own behalf. Neither have they asked for an unreasonable interpretation of existing laws. They have made no effort, as has been charged, to strike down any legitimate competing interest. The laws against the manufacture and sale of impure milk, of filled cheese, and of butterine have been founded upon broad principles of public policy. Their primary purpose is to protect consumers of dairy products from the imposition of counterfeits and frauds.

The law of 1895, prohibiting the manufacture of filled cheese, has obliterated the filled cheese industry in this state.

The law requiring the peculiar form of ten inches in diameter and nine inches in height for skim cheese has very nearly stopped the manufacture of that article.

The cheese product of Wisconsin to-day is superior to that of any other period in the history of the industry. The state could not properly prohibit the manufacture of skim cheese, which is in itself a legitimate article. But as long as it was manufactured

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and sold in many instances for full cream cheese, it had an unquestioned right to throw such restrictions about its manufacture and sale as would protect the public from impositions of this kind. The result of this legislation has been to make full cream cheese constitute almost the entire product of the state.

Very little Wisconsin cheese is now shipped to European markets. For the last two years the domestic demand has been constantly increasing. At least three-fourths of the cheddar cheese manufactured in this state is sent into the southern states.

A marked change has taken place in factory management. Buildings and utensils are kept more scrupulously clean. Cheese makers are more generally becoming students of their business rather than imitators of their predecessors. The Dairy School of the State University is bringing into the business a constantly increasing number of trained experts in cheese making. The influence of the Farmers' Institutes and of the dairy press, of the State Dairymen's Association, and of the Agricultural College, is giving us cheese makers who know their business, who like it, and who are on the alert to catch any idea which may be of value in securing economy in the manufacture of cheese, perfection in curing it, and intelligence in its sale.

A. D. DeLand of Sheboygan, who has been familiar with the cheese industry of Wisconsin from its inception to the present time both as a manufacturer and wholesale dealer, and who handles millions of pounds of Wisconsin cheese annually, says that the cheese of 1898 produced in this state has never been equalled in quality. The correctness of this statement is emphasized by the fact that Wisconsin cheese is bringing one and one-half cents more per pound than in 1896, and that the demand is far in excess of the supply.

A large amount of Swiss, Limburger and similar forms of cheese is manufactured in the counties of the southern part of the state, the bulk of it being manufactured in Green county. Shipments from Green county in 1898 will reach ten million pounds, and the total product of the state is undoubtedly over fifteen million pounds.

While there has been great improvement in cheese making in Wisconsin, we are a long way from perfection. The inspectors

of this department and the cheese instructors sent out by the State Dairymen's Association and by the Agricultural College find many factories where uncleanliness and disorder evince careless or incompetent management.

Wisconsin produces more than one-fourth of the entire cheese product of the United States. Good climate and accessibility to the southern markets give her great natural advantages. The progress made during the last two years has been such that at the present time the best Wisconsin cheese is selling in the markets of this country on a par with the best products of New York and Canada. Improvement in the character of the American cheese product will carry with it an increased domestic demand, and rapidly tend to restore our former position in the European markets.

The state of Wisconsin has been wise in protecting this great industry from fraudulent competition, and by generous appropriations to the State Dairymen's Association and to the Dairy School at the State University for educational purposes.

The consumption of cheese in this country is only about three pounds annually per capita. A pound of cheese costs less than a pound of meat and has more than double its nutritive value. work of education should be carried on by the friends of the dairy interest, not only for the purpose of producing a palatable and digestible cheese, but in educating the public to use it as a staple food of great economic value. The time has come when this kind of education can be made effective. We can urge people to eat cheese with the enthusiasm born of conviction when we offer them cheese which is fit to eat. It will be wise policy on the part of the state, in addition to the excellent legislation already upon our statute books affecting this industry, to add to the dairy commission a force large enough to give rigid inspection to every cheese factory in the state, and enforce such sanitary regulations as will secure cleanliness and healthfulness of the product.

BUTTER.

The butter product of Wisconsin for 1898 will reach nearly 80,000,000 pounds, and will have a value of nearly \$13,000,000. The counties of Columbia, Dane, Dodge, Fond du Lac, Grant, Green, Iowa, Jefferson, Kenosha, La Crosse, LaFayette, Manitowoc, Monroe, Outagamie, Pierce, Racine, Richland, Rock, Eau Claire, Trempealeau, Vernon, Walworth, Washington, Waukesha, Waupaca, and Winnebago produce over a million pounds each. Dane heads the list with a butter production of nearly 6,000,000, pounds, and Walworth follows with the production of 5,500,000.

Creameries dot all the great agricultural counties of the state in close proximity. No comprehensive and correct list of them has ever been made. The list published in the last biennial report of this department embraced 951 creameries. This list was obtained by taking the reports of the census enumerators and by correspondence with every post master in the state. It was expected that through these means the name and post office address of each creamery could be ascertained, but it was found that a considerable number of mistakes were made by the enumerators and not all of them were corrected by correspondence with the post masters. For the purpose of obtaining a more perfect list, this department sent return postal cards to every creamery and factory upon the original list requesting their name and address, and also the addresses and names of creameries and factories recently established. There were sent out 2,650 of these postal cards, and only 750 replies were received. The list published in this report is substantially correct so far as it goes, but it does not embrace all the factories and creameries of the state.

Seventy-five per cent. at least of the Wisconsin creameries are now operated upon the co-operative plan. The average quality of the butter product of the state is improving, owing to the same influences which have changed the character of our cheese production. The rapid increase in butter production in all the great agricultural states of the west has had its effect upon prices, and the Wisconsin butter maker is compelled to accept each year a slightly diminished average price. The net profits of the busi-

ness, however, have not been diminished, because of the general increase in knowledge of the dairy business, because the standard of dairy stock is steadily being improved, because dairy cattle are receiving better care, and because there is more widespread information about economical feeding and the manufacture of the butter product.

OLEOMARGARINE.

The great competitor of butter, oleomargarine, has had a more restricted field during the last two years. The law of 1895, which prohibited the sale of oleomargarine and similar compound when made in imitation of yellow butter, has been effective in reducing the number of licensed dealers in oleomargarine in this state and in greatly diminishing the total sales of that article.

The report of prosecutions under the oleomargarine law in the last biennial report of this department was mainly composed of violations by retail dealers of the anti-coloring law. the past two years we have had 11 oleomargarine cases, but mainly against hotel, boarding-house and restaurant keepers. every case the law has been upheld by the lower courts, and no appeal has been made to the supreme court of the state. decisions of the United States supreme court, declaring unconstitutional the law of Pennsylvania, which prohibits without qualification the manufacture and sale of oleomargarine, and the law of New Hampshire, which requires oleomargarine and similar compounds to be colored pink, have given new life and aggressiveness to the manufacturers of and dealers in this article. misapprehension which seemed to exist upon the part of the metropolitan press of the country has added to this feeling and given to the public the widespread belief that the laws of Illinois, Massachusetts and Wisconsin, which were drawn upon the same lines, had also been nullified by the decisions referred to.

The oleomargarine law of Wisconsin is not a prohibitory law. It explicitly permits the sale of oleomargarine, when sold under its own name and color. The constitutionality of the Wisconsin statute was not in question in the New Hampshire and Pennsylvania cases. The oleomargarine law of Masssachusetts, upon

which the Wisconsin anti-coloring act was based, was passed upon by the Supreme Court of the United States in the Plumley case, which was carried up from the state of Massachusetts and a sweeping decision rendered by Justice Harlan, affirming the constitutionality of the Massachusetts law and declaring it to be a proper exercise of the police powers of a state to prevent the manufacture and sale of counterfeit food products.

In the first cases brought under the anti-coloring act of 1895, the state was successful and an appeal was made by the defendants to the Supreme Court. It is to be regretted that this appeal was afterward withdrawn, the defendants evidently anticipating an adverse decision. The friends of the law would have been well satisfied to have had its constitutionality passed upon by the highest court in the state. Without presuming to determine what a supreme court decision would be, the assumption is reasonable that the law would have been upheld, as it has been in every court of every state where a similar law has been in force.

The enforcement of the law has greatly diminished the sales of oleomargarine in this state, and has made it impossible for the Chicago manufacturers to market their goods in Wisconsin in any considerable quantities through retail dealers.

A device for avoiding the law has been adopted by the Chicago manufacturers and dealers to retain a portion of their trade. consists in the selection of local agents who take orders from consumers, to whom the goods are shipped direct. As it is not an offense to buy oleomargarine, and as the sale is made outside of the state, it is not possible under the present law to reach these Additional legislation is needed which shall provide that when any person takes orders for oleomargarine to be supplied by parties within or without the state, such person shall be deemed a retail dealer under the oleomargarine act. No other amendments have been suggested by the experience of this department in enforcing the law during the last three years. been discovered in the court proceedings of that period. only way in which the law could be made more effective would be by an addition to the number of inspectors now authorized by law.

It is possible with the present force of the department to

determine whether or not licensed dealers in oleomargarine in the state are complying with the law, but it is not possible to send inspectors to the boarding houses, restaurants and cheap hotels scattered all over Wisconsin, which are using it upon their tables as butter and selling it to their boarders as butter. In these cases the fraud committed upon the final consumers is as great as that which can be perpetrated by a retail dealer. In all classes of hotels and boarding-houses, from the most expensive to the one which sells a meal for ten cents, there is not one customer in one hundred who will call for or desire to eat butterine. In these places when it is consumed, it is almost invariably in response to a call for butter, and purchased and eaten as butter.

The law is primarily intended to protect, and does protect, the purchaser of dairy products from the imposition of a counterfeit. Incidentally it removes, or tends to remove from the butter markets of the country a dishonest and dangerous competitor of a better and more costly product, which is the result of honest labor and skill. The law was wisely framed, and it is gratifying to know that it has not only been sustained by the courts of the state, but by general public sentiment.

DAIRY INSPECTION.

The legislature of 1897 created the office of Dairy Inspector. The compensation of this officer was fixed at \$3 per day for actual service and expenses. The appointment rests in the hands of the Dairy and Food Commissioner, with the approveal of the Governor. Norton J. Field, of Milwaukee, was appointed to the position. The office was created mainly for the purpose of securing an assistant in the food and dairy department who could devote a portion of his time to the inspection of dairies furnishing milk for the city milk trade. The condition of a considerable portion of the milk dairies in the vicinity of the larger cities, and notably of Milwaukee, was such as to prejudice the public health and warrant the state in making official examinations. During the winter of 1898 Mr. Field inspected 200 dairies in the city and vicinity of Milwaukee. A very considerable percentage of these dairies were found to be in a most filthy condition. Cows were being kept in close, poorly-ventilated, filthy stables, with little light, no regard for order or cleanliness, and fed in some instances exclusively upon distillery slops. Some dairies were found where the cows had little or no exercise, were never cleaned, and were simply walking monuments of filth. The law requires that cows kept for the purpose of producing milk for the city milk trade shall be kept in a clean and wholesome condition. The offending dairymen were all notified of the fact that they were violating the law, instructed to clean up, and some of them were prosecuted and convicted. Such convictions and warnings have had a wholesome effect. There is a marked change in the character of the milk supply which has taken place during the past two years.

All efforts of this department have been vigorously supplemented by the health department of Milwaukee. The dairy inspector reports that almost without exception the offending dairymen have heeded his warnings and manifested an earnest desire to comply with the law. Milwaukee has not only obtained cleaner and more healthful milk, but milk of a better character than ever before. An examination was recently made by this department of samples of milk taken from over 100 milk wagons in that city, and only one of the samples fell below the legal standard. In 1897 an examination of samples taken from 200 wagons indicated that the milk supply of Milwaukee was either adulterated or skimmed to the extent of 16 per cent. of dairy inspection is important and should be extended by the appointment of an additional inspector whenever state finances will permit.

THE PURE FOOD LAW.

The only comprehensive general pure food law ever enacted in Wisconsin was passed by the legislature of 1897. The laws relating to the sale of adulterated dairy products were made reasonably stringent before that time. The only law under which the Dairy and Food commission could prosecute dealers in adulterated food products, other than those of the dairy, was the law of 1879, which prohibited the false labeling of these products and provided for the prosecution of parties who knowingly violated

the law. As it is practically impossible to prove the matter of intent, the law was a dead letter, and the work of adulteration went on without let or hindrance by the state. The present law as passed embodies the main features of the pure food law now in force in Ohio, Massachusetts and other states, and which have been incorporated in the various pure food bills which have been presented to the attention of congress.

While the majority of the adulterations common in food products have not been injurious to the public health, all of them have taken money from the public pocket. Adulterations had become so common and widespread in many articles of food that it was deemed impossible by many sincere men in the grocery trade to eradicate them by any law that could be devised.

The most common violations of the pure food law have been the sale of low wine vinegars for cider vinegars, of glucose syrups for cane syrups, of wheat middlings and low grade wheat flour for buckwheat flour, of lemon and vanilla extracts containing no lemon or vanilla, of artificial jellies for pure fruit jellies, of all manner of adulterated spices for pure spices, of prepared meats containing chemicals injurious to the public health, of coffee essence which does not exist, of cottolene sold for pure lard, of coffee and chicory sold for pure coffee, of imported canned vegetables colored or treated with poisonous chemicals, of alum baking powders sold for cream of tartar, baking powders, and of pure honey adulterated with glucose.

The law of 1897 provided that it should not become operative until January 1st, 1898, the purpose of delay being that the grocers of the state might become informed of the provisions of the law and prepare themselves to meet its requirements. This delay in enforcement did not accomplish its purpose. Men seldom inquire about a law until it begins to press upon them and no general inquiry was aroused until the law took effect. On January 8th, 1898, for the purpose of informing the trade with reference to this legislation which so materially affected them, this department sent out the following circular and warning:

Madison, Wis., January 8, 1898.

To the Manufacturers and Dealers in Foods and Drugs in Wisconsin: The pure food law passed by the legislature of 1897 became operative under its provisions January 1st, 1898. At the request of the officers of the Wholesale Grocers' Association of the state, and for the information of the trade generally, this department has interpreted the law to the extent of the rulings printed herewith. Specific lists of brands of pure or adulterated articles will not be sent out by this office, as such lists would be used for advertising purposes. No list of alum baking powder will be issued by this department for the same reason. The retailers must find their protection in the guarantees of reliable jobbers or manufacturers that the goods purchased are made and labeled in accordance with the law. will not be possible for the chemist of the commission to analyze and report the character of samples of food products sent to us, unless such analyis is desired for the purpose of prosecution, if proof be found that the articles so submitted are sold in violation of law.

The dairy and food commissioner is authorized by law to employ only one chemist, and if all samples sent him for analysis by individuals should be analyzed and reported upon, he would have no time to analyze the samples taken by our inspectors, or to appear in court proceedings as a witness for the state. Retailers of canned goods should comply with the law requiring such goods to be labeled with the name and address of the manufacturer or the retailer. A large correspondence with retailers, jobbers and manufacturers indicates clearly the general desire of the trade to comply with the law. It is also backed by a strong public sentiment in behalf of pure food products. This department which to a considerable extent is entrusted with the execution of the law, will endeavor to make it effective because it is the law, because it is based upon sound principles of public policy, and because it has the endorsement of public judgment. The wholesale adulteration of foods has been a great evil, injurious to reputable dealers and the public alike. It cannot be stopped in a day. But gradually, as the dealers in food products become acquainted with the meaning of the law, they will be held responsible for a compliance with its provisions. H. C. ADAMS,

Dairy and Food Commissioner.

LAW PROHIBITING THE ADULTERATION OF FOOD AND DRUGS.

TAKING EFFECT JANUARY 1ST, 1898.

Sale of adulterated food or drug. [Sec. 1, ch. 166, laws of 1897.] No person, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver or have in his possession with intent to sell or exchange, or expose or offer for sale or exchange, any drug or article of food which is adulterated within the meaning of this act.

"Drug" and "food" defined. [Sec. 2, ch. 166, laws of 1897.] The term "drug," as used in this act, shall include all medicines for internal or external use, antiseptics disinfectants and cosmetics. The term "food" as used herein, shall include all articles used for food or drink by man, whether simple, mixed or compound.

Adulteration, what is. [Sec. 3, ch. 166, laws of 1897.] An article shall be deemed to be adulterated within the meaning of this act:

- (a) In the case of drugs: First, if, when sold under or by a name recognized in the United States Pharmacopoeia, it differs from the standard of strength, quality or purity, laid down in the latest current edition thereof; second, if, wher sold under or by [a] name not recognized in the Pharmacopoeia, but which is found in the Pharmacopoeia of some other country, the National Formulary or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in the latest current edition of such work; third, if its strength, quality, or purity falls below the professed standard under which it is sold.
- (b) In the case of food. First, if any substance or substances have been strength, mixed with it, so as to lower or depreciate or injuriously affect its quality or purity; second, if any cheaper or inferior substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of or is sold under the name of another article; fifth, if it consists wholly, or in part, of a diseased, infected, decomposed, putrid, tainted or rotten animal or vegetable substance or article, whether manufactured or not; sixth, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed. or if by any means it is made to appear better, or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous, injurious or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture; provided, that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles of food, if the same be distinctly labeled as mixtures or compounds, and from which no necessary ingredient in its preparation is eliminated.

Baking powder containing alum, how labeled. [Sec. 5, ch. 166, laws of 1897.] No person, by himself, his servant or his agent or by the agent or servant of any other person, shall: First, make or manufacture baking powder or any mixture or compound intended for use as a baking powder; second, or sell, exchange, or deliver, or have in his possession with the intent to sell or exchange; or expose or offer for sale or exchange scuh baking powder, or any mixture or compound intended for use as a baking powder, which contains alum in any form or shape, unless the presence be distinctly shown by a label on the outside and face of which is printed with black ink, in legible type, not smaller than brevier heavy

gothic caps, the name and residence of the manufacturer and the following words:

"THIS BAKING POWDER CONTAINS ALUM."

Canned food, how labeled. [Sec. 4, ch. 166, laws of 1897.] No person by himself, his servant or agent or as the servant or agent of any other person, shall: First pack, can or preserve fruits, vegetables or other articles of food; second, or sell, exchange, deliver or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange, such canned articles after January first, 1898, with the exception of goods bought from foreign countries, unless such articles be distinctly labeled with the grade or quality of the same, together with the name and address of the person, firm or corporation packing or canning or preserving the same, or the dealer who sells the same.

Patent medicine containing poison, labeling of. [Sec. 6, ch. 166, laws of 1897.] No person by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver or have in his possession with the intent to sell or exchange or expose or offer for sale or exchange, any medicine known as patent or proprietary, or of which the formula is kept secret by the manufacturer, which contains morphine, strychnine, cocaine, or poisonous or narcotic alkaloid or drug in any quantites which the State Board of Health shall deem harmful to the life or health of the puble, unless the presence of the same be distinctly shown by label upon the bottle or package and upon the outer wrapper thereof.

Penalty. [Sec. 7, ch. 166, laws of 1897.] Whoever violates any of the provisions of this act shall be guilty of a misdemeanor, and upon any conviction shall be fined not exceeding one hundred nor less than twenty-five dollars for each and every offense.

Repealing clause. [Sec. 8, ch. 166, laws of 1897.] Section 4, chapter 248, laws of 1879; sections 1, 2, 3, 4, 5 and 6, chapter 252, laws of 1880; section 5, chapter 40, laws of 1881; section 13, chapter 167, laws of 1882, as amended by section 11, chapter 227, laws of 1895, and all acts and parts of acts inconsistent with this act shall be and the same are hereby repealed.

When to be in effect. [Sec. 9, ch. 166, laws of 1897] This act shall take effect and be in force from and after January 1, 1898.

In addition to this, a number of rulings were made by this department for the purpose of giving the grocers a better understanding of the law. It was definitely stated at the time that the rulings were not final, and that they were subject to such changes as a further examination and trial of the law should make necessary. The Dairy and Food Commissioner met representatives of the Wholesale Grocers' Association, of Milwaukee, in compliance

with their invitation, on several occasions, and discussed with them the character of the law and the interpretation which should be placed upon it. This association passed formal resolutions declaring itself in full sympathy with the purposes of the act, and the members individually, to a very large extent, declared their purpose of supporting it in every reasonable way. Ten thousand circulars were scattered over the state. Copies of the law were sent to all the daily papers of the state, and a vigorous effort made to give it proper publicity. The law not only prohibited the adulteration of foods, giving to the word "food" the sweeping definition of meaning every article of food or drink used by man; it also provided that all packages of alum baking powder should be labeled, "This baking powder contains alum." It further provided that all canned goods offered for sale should be labeled with the date of their manufacture and the address of the manufacturer or the retail dealer.

The law further provided for the examination of patent medicines and required that, whenever, in the judgment of the State Board of Health, any patent medicine should contain poison in a quantity sufficient to be injurious to the public health, such medicine should be labeled "This mixture contains poison."

With the shelves of jobbers and manufacturers containing large quantities of adulterated goods, and merchants all over the state being stocked with the goods to a greater or less extent, it was deemed inexpedient to undertake a rigid and universal enforcement of the law, until the dealers in food products in the state who were sincere in their desire to comply with it should be informed of its provisions and have a reasonable time in which to adjust their business to the new order of things. In the beginning, manufacturers of alum baking powders insisted that the law relating to their product was unconstitutional; that they would not obey it, but would fight it in every court in the state. This programme has not been carried out. On the contrary, manufacturers and jobbers have manifested a marked activity in supplying their trade with the necessary labels, and it is estimated that within three months after the law went into effect over 100,000 baking-powder labels had been placed upon packages of that article in this state.

The manufacturers of alum baking powders have presented to

this department a formidable array of authorities maintaining the healthfulness of their product, and urging that, as it was a whole-some product, the requirements of the law were unjust and should be disregarded. The question of the wholesomeness of alum baking powders has not been considered by this department. The legislature of the state required that they should be labeled. The requirement was not made to protect the public health, but to advise consumers of the character of the article purchased and so prevent fraud. The practice had been common in many communities to sell the cheap alum baking powders for and as the most costly cream of tartar powders.

The state has been successful in all the cases brought under the pure-food law, with one exception. In one case the defendant was able to escape conviction by committing rank perjury. The pure-food law has undoubtedly reduced the sales of adulterated foods in this state fifty per cent. As the dealers in food products become better informed as to the meaning of the law, its provisions will be more rigidly enforced, and Wisconsin will finally be made a state where honest food products shall dominate the markets.

FACTORY AND CREAMERY INSPECTION.

Nearly all of the time of the Assistant Dairy Commissioner, W. W. Chadwick, has been taken up in response to calls from managers of creameries and factories desiring that the milk of their patrons be tested. These requests have been less numerous during the last year. This line of work carried on by this department during the preceding years, coupled with the vigorous prosecutions of offenders against the law, has materially reduced the number of patrons of creameries and factories who deliver milk below the legal standard. The almost universal use at the present time of the Babcock tester in factories, as well as creameries, makes it also possible for the managers of these concerns to know what kind of milk they get.

The general condition of creameries and factories, so far as cleanliness and methods of management are concerned, has been greatly improved, but a considerable number of them are still open to severe criticism. Great good could be accom-

plished if the force at the disposal of this department were sufficient to inspect every factory and creamery in the state each year, and compel, by the strong arm of the law, the best sanitary regulations, and suggest through instruction the best possible management. If this work could be thoroughly done, the butter and cheese products of Wisconsin would be placed, in quality, where they would find no dangerous competition either in American or European markets.

COURT PROCEEDINGS.

In all the cases brought by this department during the last two years in behalf of the state, not one has been compromised. No effort has been made to secure success for the sake of success in any of these cases, unless the evidence warranted fully the conviction of the defendant. In every instance of prosecution the case for the state has rested and depended upon the testimony of the chemist of this department, Mr. A. S. Mitchell. The chemical tests made by him have never been impeached in the judgment of court or jury by opposing expert testimony.

This department has found Wisconsin courts good places in which to try violators of pure-food laws. They have been found above the reach of personal and local considerations, and alive to the necessity of sustaining those laws which protect health and which tend to secure honesty in trade.

REPORT OF THE CHEMIST.

MILK.

Since the publication of the last report of this department, few important discoveries have been made in the chemistry of milk.

Galactase.

The most important scientific discovery relative to the composition of milk is perhaps the discovery of an enzyme normal in milk and having digestive properties similar to trypsin of the pancreatic juice. The original article was published by Drs. Babcock and Russell in the proceedings of the Agricultural Experiment Station, University of Wisconsin, for 1897. Since that report further work has been done confirming the presence of the enzyme, galactase, and determining the relative amounts present in cow's milk during the various periods of lactation. Expermients have also been made showing its presence in the milk of other mammalia all of which have been published in the report of this experiment station for 1898.

Milk sugar manufactured.

The increased production of milk sugar in the United States has greatly lessened its cost and increased its demand, with the result that the Swiss and foreign product has been almost excluded from this country. Many factories are in successful operation in the eastern states and one in Illinois.

Casein utilized. The demand for casein obtained from skimmed milk and used in the sizing of paper is greatly on the increase, and bids fair to become a large and important industry. Many of the newer and better class of books are printed on paper so sized.

Puffy cheese.

Many calls have come to this department from cheese-makers who are troubled with "puffy cheese," due to filthy milk or milk improperly cared for. As this department has principally to do with the enforcement of the laws with reference to the adulteration of dairy products and food and drugs, the inspectors are unable to make the tests required to locate the milk giving the trouble.

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Fig. 7.—Curd from a good milk. Large irregular holes mechanical.

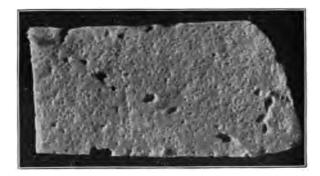


Fig. 8.—Curd from a bad milk. Large irregular holes mechanical, small pin holes due to gas.



Fig. 9.—Floating curd from a very bad milk. Condition reached by further development of fig. 8, or a greater number of gas-producing bacteria.

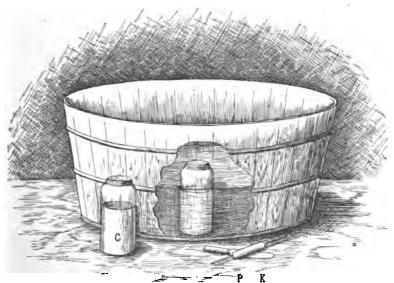
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Detection of tainted milk.

Directions for making this test are given under "Improved Curd Test," in bulletin No. 67, published by the Agricultural Experiment Station, University of Wisconsin, entitled "Factory Tests for Milk." These directions are also given in perhaps more concise form in the manual entitled "Testing Milk and Its Products," by Farrington & Woll. This work describes many other tests of value to dairymen, cheese and butter makers. For the convenience of cheese-makers, that portion of the bulletin referring to the curd test is here inserted in abridged form.

WISCONSIN CURD TEST.

An improvement over the ordinary fermentation test is the preparation of a curd test or the making of a small pat of curd out of each patron's milk. In this the conditions of the test more closely approximate those that occur when the milk is made into cheese. The test as here described originated at the Wisconsin Dairy School in 1895, and is known as the Wisconsin Curd Test.



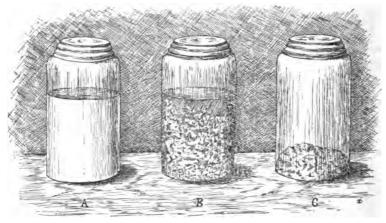
Improvised curd test. C, cans used to hold samples; P, pipette for measuring rennet; K, knife for breaking curd.

A method based on the same principle, although executed in a different manner, has been used in Switzerland during the last few years.

The advantages of this curd test over the earlier

fermentation tests are as follows:

- 1. That the curd prepared from individual samples of milk more closely conforms to cheese conditions, thereby permitting a more accurate determination of the value of milk for cheese.
- 2. The development of gas and the relative amount of the same can be more easily traced in the curd than in the milk.
- 3. The removal of the milk serum with its abundance of fermentable sugar renders a more accurate test possible.
- 4. The detection of odors in milk that has been tainted by direct absorption is rendered possible.



Showing different stages of test. A, milk; B, broken curd in whey; C, matted curd.

A study of different milks by this test shows that almost all samples contain slight evidences of gas, if kept under conditions unfavorable for the keeping of milk, as is the case in the test.

During the heated season, the conditions are more favorable for the rapid development of these bacteria, and therefore, "gassy" fermentations are more troublesome in the summer months. A study of different herd milks for a considerable period of time shows, as might be expected, that this condition is not abso-

lutely constant, but nevertheless, the presence of bad taints in certain milks has been found to be surprisingly uniform. In some herds the milk is so carelessly received and handled that gas-forming bacteria are almost a constant accompaniment; in others, the undesirable condition is transitory, some days gas appearing in quantities, to be followed by a period of comparative freedom from taints. In such cases the difficulty is temporary, the climatic conditions often being the deciding factor. In still other cases the herd milks are always free from any suspicion of taint. These represent in general the patrons that exercise the greatest care in their treatment of the In case the curds are kept for 24-36 hours some gas will appear in even the very best milk, as gas-producing organisms are present to some extent under the most favorable circumstances. In general, however, a tainted or defective condition, as revealed by the curd test, is usually traceable to the introduction of foreign matter such as filth, dirt or dust.

It not infrequently happens that a tainted condition may appear in the curd that is not associated with the production of gas. In some cases this arises from direct absorption of undesirable odors, either from the animal herself or from exposure after milking. It is a current belief that milk will not absorb odors when it is warmer than the surrounding air, but such an hypothesis has been experimentally determined by one of us (R.*) to be erroneous.

Leaving the warm milk in the stable, even for a limited time, where obnoxious odors are almost always present, is detrimental, as it gives an opportunity for the direct absorption of taints. Taints of this sort are not very prominent in the curd test, yet they can frequently be detected, as they are retained in the milk and are more readily perceived when the milk is warm.

It frequently happens that digesting bacteria that dissolve the casein without the production of gas may also be present. In such cases, the casein passes partially into solution. and is lost in the whey. The taints caused by this class of organisms are peculiarly offensive. Milks that contain such bacteria in any considerable numbers give a materially diminished

^{*}Unpublished data.

yield of cheese, and illustrate the unfairness of the guarantee principle that demands that a maker should make a pound of cheese from a certain quantity of milk regardless of conditions.

IMPROVISED CURD TEST.

The apparatus for the Wisconsin Curd Test resembles in some respects the Gerber apparatus. A homemade test can be improvised that will give good results, but we would advise the use of one of the perfected tests as it is more convenient.

The apparatus for the test consists of a wash tub (see Fig. 2) that is half filled with warm water, a set of pint fruit jars (C) for the different samples, a pipette (p) for measuring the rennet, and a case knife (k) for breaking the curd.

HOW TO MAKE A TEST.

To make a test, fill a jar half full of milk. Set samples in the tub and fill the same half full of warm water. Usually water at 115° F. will raise the temperature of the milk to the desired point, viz., 98°. If the milk is very cold care should be taken not to use too hot water to prevent cracking the jars.

When the temperature of the milk reaches 98° F., add to each sample by means of a pipette, ten drops of rennet extract and mix thoroughly. Allow the jars to remain undisturbed until milk is curdled, then break the curd into small particles by stirring with a case knife, in order to better expel the whey. In using thermometers for taking temperatures, or knife for cutting the curds, care should be taken to rinse after using in each sample so as to prevent the transference of many organisms from one sample to another.

The whey should be poured off as soon as the curd settles to the bottom, this process being repeated at frequent intervals until the curd mats into a solid mass. This expels the excess of whey which contains the fermentable sugar, thereby simulating cheese conditions more closely. The temperature of the surrounding water should be maintained from six to

eight hours to favor a rapid development of the contained organisms.

This improvised apparatus will enable any cheese maker to use the test with satisfactory results, but time can be saved and greater convenience secured if apparatus is devised for the particular purpose in hand. When the curd test is in constant use some special apparatus will be well worth the expense.

INTERPRETATION OF RESULTS.

If the milk contains no deleterious bacteria the curd when cut will present a firm, even texture as shown in Fig. 7. If gas-producing bacteria are present the texture of the curd will be more spongy, the cut surface showing a number of holes varying in size, depending upon the prevalence and gas-producing ability of the undesirable bacteria as shown in Figs. 8 and 9.

Care should be taken to discriminate between purely mechanical holes that are formed by the failure of the curd to mat closely and those caused by the fermentation of gas. Mechanical holes are irregular in form and more variable in size, while holes formed by gas are circular in outline and more uniformly distributed throughout the whole mass of curd. As gas continues to be formed, the curd puffs up and some of the gas may escape into these mechanical openings, distending them, and giving them the appearance of regularly formed gas holes. The size of the gas holes in the curd is largely dependent upon the duration and activity of the fermentations. The longer the curd is allowed to ferment at a proper temperature, the larger and more numerous will be the holes. Even in a good milk, a few holes will develop if the curd is held for 24 hours or more, but the presence of a few "pin holes" within six hours need not condemn a milk unless accompanied by undesirable odors.

The conditions under which the curd test is conducted accelerate the fermentative action, so that a milk that might show no symptoms of gas formation until the cheese was on the shelf, would be detected when subjected to the curd test. Milks that are sufficiently contaminated to produce floating curds will show a very spongy texture in the test in a few hours.

No hard and fast rules can be given for the interpretation of the results of the curd test, but an ordinary operator will very quickly learn to discriminate between milks that should and should not be accepted.

It should be borne in mind that the formation of gas is generally accompanied with the production of other decomposition products that possess more or less pronounced undesirable flavors and odors and that the injury to the cheese is due to this more than

to the mere mechanical presence of gas.

It is also possible that taints may be produced by bacterial decomposition in cases where no gas is formed. This is particularly true with that class of organisms that act upon the albumen and casein instead of the milk sugar. Those bacteria that find their way into the milk through the introduction of filth and dust are particularly prone to produce this change, and this type of fermentation is very often found during the summer months. In the curd test such milks are not condemned upon the texture of the curd but upon the odor which is more or less pronounced when the bottles are opened.

CONCLUSION.

From the foregoing it is evident that the Wisconsin curd test in the hands of the factory operator is a valuable adjunct in enabling him to determine the presence of taints which might otherwise escape detection. The losses that accrue from these sources are in the aggregate very large and the difficulty hitherto has been that the cause of these troubles could not be located with sufficient accuracy to enable restrictive measures to be employed. The Wisconsin curd test fills this want and has been shown to be an efficient detective of tainted milks. It is therefore earnestly recommended that this test be employed in factories when difficulties of this sort are met with.

While the curd test is especially useful in helping to solve the controversies that arise in every factory between maker and patrons as to the presence and origin of tainted milks, the other factory tests mentioned in this bulletin should not by any means be ignored as they will often throw light upon the char-

acter of the milk.

Prepared milk adulterants.

Formic aldehyd.

The preparation and sale of carefully made adulterants and preservatives for milk, calculated to eluda both consumer and chemist, are increasing. Formic aldehyde for the preservation of milk has been largely sold under the following titles: "Freezine," "Liquid Sweet" and "Special M. Preservaline." Extravagant claims are usually made as to the properties of these substances. In one instance the formalin was stated to act in the same manner as "freezing the bacteria." In all instances the material is guaranteed to be non-poisonous and perfectly harmless.

Injurious nature of.

The injurious character of formalin in the concentrated state is well known, and its effect upon living cells, even when greatly diluted, is best shown by pointing out that the use of formalin as a preservative for morphine solutions for use as ear drops was discontinued because the formalin seemed to kill the skin, causing it to dry and peel off where it had remained in contact with it, even when highly diluted.

I would emphasize the fact that the use of any of these preservatives is only necessary where milk is filthy, or has not been properly cared for. If their use is wholly prohibited by law, the purchaser may be assured that old or dirty milk will show its true character through the taste and smell.

Formic aldehyd, detection.

For the detection of formic aldehyde in milk three tests have proved of value in my hands. Perhaps the most satisfactory is the phloro-glucin test, as suggested by M. Jorissen, and described in the Analyst, 1897, page 282. A modification of this test has been used as follows:

Phleroglocin

.500 Gm. of phloro-glucin and 10 Gms. of caustic potash are each dissolved in a small amount of water, mixed and diluted to 50cc.; 10cc. of the milk to be tested is placed in a white capsule and 2cc. of the reagent added. Upon mixing, a pink color rapidly develops when formalin is present. A strong reaction is yielded when one dram of formic aldehyde (40%) is added to 8 gallons of milk. One-half this amount gives a distinct showing and may be detected.

Hehner's test.

Hehner's test, resulting in the production of a violet color at the point of contact, when milk is overlaid on concentrated commercial sulphuric acid, gives reliable results and is extremely sensitive with certain samples of acid. When acid giving a satisfactory reaction is found, it is well to reserve a portion of it especially for this purpose. The color produced will

frequently remain for several days.

Lieberman's reaction.

The distillate from milk preserved with formic aldehyde may also be tested when mixed with a very dilute aqueous solution of phenol and overlaid on sulphuric acid, formic aldehyde being indicated by a crimson coloration.

Silver test.

The silver reduction test may also be used as corroborative evidence in working upon fairly concentrated distillates. Reduction takes place more rapidly when a small quantity of caustic soda is added to the silver nitrate solution which has previously been precipitated and re-dissolved in a slight excess of ammonia. A distinct and decisive reduction should take place in every case where reliance is placed on this reaction.

Shiff's re-agent.

Shiff's re-agent has been shown to give fallacious results upon milk, and is not to be recommended.

Formalin in wines and cider.

Hehner's test for formic aldehyde in milk may be modified, as suggested by him, so as to be of value in the detection of formic aldehyde in wine, cider and similar liquors. The blue color is the result of the reaction between the proteids of the milk, the formic aldehyde and the acid in the presence of small amounts of ferric chloride or similar salts. If. then. to wine or cider a few drops of milk are added and the mixture overlaid on sulphuric acid, the blue-toviolet coloration will take place.

Gelatin detection.

A method of detecting gelatin in milk was published by Stokes in the Analyst for December, 1897. A quantity of mercury is dissolved in twice its weight of concentrated nitric acid and the resultant solution diluted to 25 times its bulk. 10cc. of this solution is added to 10cc. of cream with 20cc. of The mixture is then shaken, allowed to stand for five minutes and filtered. To this filtrate picric acid solution is added precipitating the gelatin. when present.

Writer's method.

In the tests made by this department tannic acid' has been used as a precipitant and the casein, albumen and globulin removed by the following method:

A volume of cream from 25 to 50cc. is precipitated by mixing with an equal volume of 5% sulphuric acid; the mixture is then warmed until separation of the casein takes place, and filtered. To the filtrate magnesium sulphate is added until a flocculent precipitate is produced. The precipitated albuminoids are then removed by filtration and the filtrate tested for gelatin with a 5% solution of tannic acid. A flocculent and quickly subsiding precipitate is produced in case gelatin is present. It is well to carry on a corresponding test upon pure cream under the same conditions for comparison. Prof. A. H. Lowe has pointed out that when the magnesium sulphate becomes too concentrated tannin is liable to be precipitated.

Dextrin.

Dextrin is said to be in use in England and on the continent as a similar adulterant for cream and milk. No milk adulterated with dextrin has reached this department.

Laktone.

A coloring matter sold for use as a milk adulterant for the purpose of giving the milk an appearance of richness was found to consist of a solution of "sulphonated aniline yellow."

For the detection of ordinary adulterants in milk and their estimation, the methods published in the previous report of this department, together with the official methods, have been used.

Samples examined.

In addition to the milk samples tested for fat, quantitative analyses were made of sixty-eight samples of milk and three samples of cream. In eleven instances the milk was found to be watered and in five instances it was found to be skimmed. Boracic acid was detected in three samples and formic aldehyde in one. One sample of milk was also found to contain starch. Butter color was found in cream in one instance.

BUTTER AND OLEOMARGARINE.

Methods of examination.

In the examination of samples of suspected butter the official methods have been used. For the identification of the fat the Reichert-Wollny number has been relied upon, together with physical examination by means of the Wollny butyro-refractometer and the polariscope.

Properties of renovated butter.

Renovated butter is becoming very common. The Reichert number is found to be about the mini-

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mum for normal butter. The polariscope and selenite shows a crystalline and prismatic field, and with the refractometer the sample gives figures slightly higher than normal for butter.

Examination for coloring.

The coloring matter used in oleomargarine has in all instances been found to consist of oil soluble azo colors, stated by Allen to be allied to "Soudan I." For the extraction of oil soluble coloring matter, Martin's test is probably the most serviceable. this test alcohol is nearly saturated with carbon disulphide and 10 Gms. of the melted and filtered fat are mixed with 50cc. of the mixture and shaken. layer of carbon di-sulphide and fat settles to the bottom, leaving the larger portion of the coloring matter with some fat and free fatty acids in solution in the alcohol. If the alcohol or alcoholic mixture is accidulated with sulphuric acid or other mineral acid, a pink coloration takes place when a coal tar color of the Soudan type is present. (Allen.) ural coloring matter of butter is not soluble in alco-Upon evaporation of the alcohol separated by the above process, the coloring matter may be concentrated and will be found contaminated with fatty matter. The residue may be purified by solution in alcohol and saponification. The alcohol should then be evaporated and the resultant soap dissolved in hot water and the solution cooled. The coloring matter may then be extracted from the alkaline aqueous solution by washing with ether. If non-alcoholic ether is used alcohol must be added in considerable quantity in order to effect a ready separation. arated ethereal solution should then be washed at least twice with water for the removal of the dissolved soap. The ether may then be evaporated leaving the coloring matter sufficiently concentrated This coloring matter for presentation as evidence. is not a dye and therefore cannot be exhibited in the usual manner by dyeing yarn.

BUTTER COLORS.

Coal tar

The use of coal tar colors as butter colors has been much discussed during the past few years. Several instances of undoubted poisoning by the use of such colors have occurred where the butter color itself has been taken internally in its concentrated form. While it is probably a fact that the amount of dry color used in any one pound of butter does not exceed two-tenths of one grain under ordinary circumstances, and that several times this amount might be administered in the concentrated form with impunity, it is nevertheless also a fact that wholly satisfactory vegetable coloring can be procured at a reasonable cost. And where harmless substances can be used it would seem there could be no excuse for the use of deleterious colors in food products in any amount whatever.

Renovated butter.

The rigid regulation of the sale of oleomargarine has given incentive to a new industry. In Illinois and various parts of the east and in one instance in Wisconsin, butter manufacturers have sent agents abroad buying up cheaper grades of dairy butter. This material of inferior and greatly varying quality is melted and treated to remove or mask its rancidity, after which it is chilled, churned with fresh milk and uniformly colored, with or without the addition of ethers or glucose to improve its flavor. This material thus renovated has been known as "Process Butter." Parties in Elgin and Chicago have placed it upon the market in competition with regular creamery butter, quoting it as such.

It has been found possible to closely imitate the original grain of the butter and to produce a flavor, which, if not pleasant, is unobjectionable for a few weeks after its treatment.

Legislation on.

An effort will probably be made at this session of the legislature to put such restrictions upon the sale of this article as will insure its being put upon the market under its true name of "Renovated Butter," and thus prevent its being foisted upon the public as the fresh article.

The results of examinations of butters and butter substitutes are here appended in tabulated form.

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Analysis of butters and butter substitutes.

Remarks.		Genuine butter.		Butter. Oleomargarine Butter.
Reichert No. $(cc. of \frac{N}{10} NaOH)$			ಜ್ಜಜಜಜ್ಜಬ್ಬಬ್ಜೆ n ಅವರಗ ರಹಚಲಾಹಜಹ ರಂಭಾ ಅಪ್ರಗಹಣ	2.5
BACTO-	Butter scale.		ದೆತ್ತತ್ತೆತ್ತೆ ದೆಬೆಬೆಕ್ಕೆ . ಇಬಹುದನ ಚಲನವನ	45.
	Critical angle.		68.85.4. 12.86.82.4 8.70 12.70.82.4 12.70 12.70.10	43.5
Character of field with polarized light.		Monochromatic	Prismatic Monochromatic Monochromatic Monochromatic Monochromatic Prismatic Prismatic Prismatic Prismatic Monochromatic Prismatic Prismatic Prismatic Monochromatic	Prismatic
Address.		Medina		Milwaukee Milwaukee
Маше.		1896. Nov. 18 C. E Meyérs Factory	Milwaukee County Almshouse N. Simon (Chicago consignment) Mr. Prout. Mr. Prout. Geo. Auer (sent by) Groquist & Erickson Groquist & Erickson Wilson & Link Gestaurant) Geo. Grow Jossen Wordt Geo. Grow Jossen Geo. Grow Jossen Wordt Geo. Grow Jossen Geo. Wordt Geo.	Chamber of Commerce Restaurant. A. Hoffmann's Restaurant. J. Linehan, butcher.
Date.		1896. Nov. 18	1889-989-989-989-989-989-989-989-989-989	Nov. 24 Nov. 24 Nov. 25

This sample contained a large amount of casein and waterand was evidently made by the	OWO WENDERGRAND WENDERD	Butter. Genuine.
	9.	Butter
	చివేచిని ఉద్దవి మాట్లి చివి చివి చివి చివి ఆయు చురు చురు చిరు చివి చివి చివి చివి చివి చివి చివి చివ	4748334444744 8 87784 8 77 74 8 8 8 8 8 8 8 8 8 8 8 8 8
	2627.266.25.25.25.25.25.25.25.25.25.25.25.25.25.	5. 6. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.
	Prismatic Ronochromatic. Prismatic Monochromatic	Monochromatic. Prismatic
Salem	Madison Madison Milwaukee Milwaukee Madison Madison Madison Madison Madison Madison Matison Matison Matison Matison Matison Matison Matison Matison Matison Janesville Janesville Janesville Janesville Janesville	Janesville Fond du Lac Fond du Lac Fond du Lac Janesville Janesvil
1897. Jan. 4 Sent by J. A. Foster	Flom's Hotel Gem Restaurant Edw McGrath D. C. Adams Avanue Hotel Lacher Hotel Lacher Hotel Gen & St. P. Lunch Counter Oction Hotel Capitol House C. & N. W. Hotel Park Hotel W. R. Carle McGravok Bros E. H. Schwartz & Co Grand Hotel Watson's Restaurant Hotel Goodwin	C. & N. W. Depot Windsor Hotel Palmer House Reyest House Russell House Suit by E. B Heimstreet Shiocton Hotel Jones H Cuse Wegemann & Straus, Geo, O. Elliot Restaurant Camp Harrey (taken with meal by W.W. Chadwick).
1897. Jan. 4	88888888888888888888888888888888888888	1898. Feb. 12 Feb. 16 Feb. 16 Feb. 23 Feb. 23 Feb. 23 Mach. 23 May 17

CHEESE.

Examination.

For the examination of cheese official methods have Sufficient fat for examination can frebeen used. quently be readily obtained by placing a few ouncesof the chopped cheese in a close muslin cloth in a dish. upon the water bath. Several Gms. of fat will. usually flow out clear and sufficiently free from water for examination by the Reichert test and butyro-refractometer.

Several samples of cheese have been examined, two of which were found to be skimmed. No cheese containing foreign fat has been found in Wisconsin: during the past two years.

Date.	Name.	Address.	Butter fat.	Remarks.
1896. Nov. 1.	Jos. Mallmann	Manitowoc	33.9	This cheese is known to be made from milk partly skimmed.
1897. April 8.	Sent by L. O'Brien	West Superior	16.02	Milk at this season of the year averaged 4.2 per cent. butter fat. Skimmed.

June 2, "New York State Cheese" on Madison market. This cheese caused suspicion by separating on cutting into an outer shell and central core, differing slightly in color. Portions from each contained the same amount of fat,—34.1 and 34.2 per cent. The oleo refractometer showed both to contain butter fat, and the Reichert No. was found to be 29.9 and 29 8 respectively. The central core probably consisted of cheese left over from one batch and placed in the center of a cheese made subsequently and with which it did not cohere.

July 30. Bought of F. C. Bates, Milwaukee. Made by Fred Luder, Mount Horeb. Retailed at seven cents. Contained 31.9 per cent. fat, having a Reichert No. 33.7. Passed as pure.
Aug. 3. N. Simon, Neenah. "Young America." Butter fat 36.9 per cent. fat.
Oct. 1. J. Wm. Beilke, Wausau. Contained 33.75 per cent. butter fat. Passed.

Several samples of cheese have been examined for tyrotoxicon, or similar ptomaines, without positiveresults.

VINEGAR.

But little change has taken place in the status of the vinegar production during the past two years.

Methods for the identification of cider solids as distinct from foreign solids are being but slowly elaborated. As suggested by Smith, a valuable indication is found in the quantity of ash and the proportion of phosphates contained therein. The condition of the phosphates as to solubility will probably prove of less value than was originally asserted, but the ratio of the phosphoric acid to the whole amount of ash present is likely to prove of much value. The methods used in the examination of vinegar are the same as were given in the previous report of this department.

Vinegar extracts Certain so-called vinegar extracts have been placed upon the market, with directions that one pint of the extract, or a given amount, be diluted with water, to a fixed volume, as one gallon, to produce a first-class table vinegar. These "extracts" are mixtures of strong acetic acid and caramel. The flavor, which is the result of by-products produced in fermentation, is entirely wanting in these vinegars. They are simply colored dilute acetic acid. The use of such extracts should be discountenanced.

The appended table gives the results of examinations of vinegars made during the last two years.

Analysis of Vinegar.

Comments.	Condemned. Passed. Condemned. Condemned. Condemned. Condemned. Condemned. Sil'r'tly below Not cider. Not cider. Not cider. Not cider. Passed. Passed. Not cider. Acid low. Passed. Not cider. Condemned. Passed. Condemned.
Malic acid.	None Present Present None None None None None None None None
Solids per cent.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Acetic acid per cent.	. 4 40100000044000 0 4444 0 04004044004 00144 21 25 822828282828 2 0 01142 2 28855385354211 65348
Sold as—	Apple cider (6 yr old) Apple cider Pure cider Pure cider Cider Cider Pure cider Pure cider Cider Cider Cider Michigan cider Crown brand Crown brand Crown brand Cider Ci
Sold by—	Alden Vin. Co., St. Louis. P. Bechtner Vin. Co., Mil. P. Bechtner Vin. Co., Mil. Alden Vin. Co., St. Louis Alden Vin. Co., St. Louis Alden Vin. Co., St. Louis Bed Cross Vin. Co., St. Louis Red Cross Vin. Co., St. Louis Alden Vin. Co., St. Louis Red Cross Vin. Co., St. Louis Naukee Red Cross Vin. Co., St. Louis Petrie Fruit Co., Rochester, Naukee Red Cross Vin. Co., St. Louis C. H. Rosenstial, Freeport, C. H. Rosenstial, Freeport, Bed Cross Vin. Co., St. Louis Bot by W. W. Chadwick Bot by W. W. W. Chadwick
Postoffice.	Merrillan Beloit Beloit Marshfield Neilisville Sheboygan Appleton Madison Gidden Gidden Girden Madison Milwaukee
Sample sent by—	E. B. Sanders. Stiles & Rogers (1) Stiles & Rogers (2) J. E. Paine G. Weisner H. C. Prange P. F. Perry G. Walsner H. E. Brehme H. E. Brehme W. F. Ferguson W. F. Ferguson W. Steinmeyer & Co. M. L. Nelson J. W. Calkins J. W. W. Calkins M. W. Calkins J. W. W. Calkins J. W. W. W. Calkins A. Graef A. Graef A. Graef A. Graef A. Graef A. Graef A. W. Bentzler Rhymer & Hensler
1896.	C c c c c c c c c c c c c c c c c c c c

Passed. Passed. Passed. Condemned. Condemned. Condemned. Condemned. Condemned. Condemned. Condemned. Passed. Condemned. Condemned. Passed. Condemned.	f-rmented. Below in sol's. Below in sol's. Foreign sol's. Foreign sol's. Condemned. Condemned. Condemned. Condemned. Condemned. Condemned. Condemned. Condemned. Foreign sel's. Foreign se	Condemned. Passed. Condemned. Below st d'rd. Condemned. Condemned. Condemned. Condemned. Condemned. Condemned.
None Present None Present Large ant Large ant None Present Present Present Present Present	Present Large amt. None None None None None None None None	Present Present Present None None Present None None None Small amt
0 0 000 004 004 00 00 00 00 00 00 00 00	8148883338442 8148883338442 6444	2.14. 1.0. 1.2. 2.3. 2.3. 2.3. 2.3. 2.3. 2.3. 2.3
4044448888408844988 88888888888849884 41	488688846444844444	;040;4444444 ;622;848;68;63
Brown distilled White distilled White distilled White distilled White distilled White distilled Pure cider Pure cider Pure mait Red A West India spiced Cider	Cider Sniced Cider Cider Cider Cider Cider Cider Cider Cider Cider Cider Cider Cider Cider Cider Cider	Cider Older Older Crier Crier Crier Crier Crier Crier Crier Crier
Amer. Vin. Works, Milw. Redeke Vin. Co. Milwaukee Redeke Vin. Co. Milwaukee Red Cross Vin. Co. St. Louis Red Cross Vin. Co. St. Louis Alden Vin. Co. St. Louis Alden Vin. Co. St. Louis Alden Vin. Co. St. Louis Red Cross Vin. Co. St. Louis Bot bw. W. Charlwick Ro't bw. W. Charlwick	Bo't by W. W. Chadwick.	The P. Beatiner Co., Mil. Reckenbauer, Plymouth Bot by W. W. Chadwick
Milwaukee Milwaukee Milwaukee Milwaukee Milwaukee Pilwaukee Pilwouth Pilwouth Pilwouth Milwaukee	Milwaukee. Milwaukee. Milwaukee. Milwaukee. Milwaukee. Milwaukee. Milwaukee. Milwaukee. Monomowoc. Monomowoc. Monomowoc. Milwaukee. Milwaukee.	Livingston Milwaukee Milwaukee Appleton Appleton Appleton Appleton Appleton Appleton Appleton Appleton Appleton
Rhymer & Hensler W. O. Bentzler Rhymer & Hensler H. E. Genske H. E. Genske H. E. Genske H. E. Kapse Geo. R. Tavlor Albert Heath C. R. Maper C. R. Maper Bo't of H. W. Schwab C. Rostad P. Anchuetz P. Anchuetz P. Anchuetz E. P. Balcom C. Hatthe. E. P. Balcom	B. Hackendahl B. D. Dickson W. H. Behl S. John Nickel S. Frod Leskey B. D. Puller S. J. C. Priske C. Johnson C. Schmidt L. C. Schmidt Ruit & Karlen Chas. Harmes Fred Schaefer Fred Schaefer Rather	J. W. Nichols & Co. John Kelly Buri & Karlen V. L. Rhodes G. Lausmann C. A. Devener Washa & Ottle W. Butler E. Schrottky F. Rademacher & Son. C. W. Schultz
20000000000000000000000000000000000000	Meh. 13 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.0.0.43.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4

Report of the Wisconsin

Analysis of Vinegar - Continued.

	-
Comments.	Condemned. Solids below str g'h. Solids below str g'h. Condemned. Passed. Passed. Condemned. Passed. Fassed. Passed.
Malic acid.	Small amt Small amt Small amt Small amt Small amt Fresent Fres
Acetic Solids acid per cent.	6128883486625886445588441188828 C46128885284
Acetic acid per cent.	88888888888888888888888888888888888888
Sold as—	Cider
Sold by—	Bo't by W. W. Chadwick Bo't coss V. Co., St. Louis Red Cross V. Co., St. Louis Red Cross V. Co., St. Louis The P. Bechtner Co. Mil Amer. Vin. Works, Mil Amer. Vin. Works, Mil H. Scheffelsis & Son, Mil Rd Cross, St. Louis Bo't by W. W. Chadwick
Postoffice.	Appleton Appleton Appleton Appleton Appleton Appleton Berlin Berlin Berlin Berlin Berlin Berlin Berlin Berlin Berlin Arosse La Crosse Rapleton Milwaukee Milwaukee Fond du Lac Appleton Berlin Milwaukee Appleton
Sample sent by—	Ingold Bros N. Schafer D. B. Bally N. Nitschke Maruga & Briese. Ben D. Fuller J. F. Runger J. F. Runger C. N. Hawley D. B. Bally J. S. Huseman D. B. Bally J. S. Huseman D. C. Adams Remington Drug Co. Appleton Pros. Co. Chaz. Paul L. C. Schmidt. Dahinden & Co. Maruga & Briese H. Rademascher T. E. Ward J. G. Poser & Co. J. H. Rademascher J. G. Poser & Co. J. H. Rademascher J. G. Poser & Co. J. G. Poser & Co. Alstepns & Co.
1897.	MARAN MERSON OF STREET

Passed. Condemned. Condemned. Passed.	Condemned. Passed. Condemned. Condemned. Condemned.
Prentes None Small amt None Large amt Large amt Large amt Present	None Large amt Present None None
68.848.8488.888.888.888.888.888.8888.88	8.82 8.92 8.92 8.92 8.92 8.92 8.93 8.93 8.93 8.93 8.93 8.93 8.93 8.93
402446488843528885528558668865898534444444444444444444468282215388238558355866886688658948226738828022	444484
Cider	Madison Co. Cider. Farmers' Cider. Cider. Cider. Cider. Cider.
Bo't by W. W. Chadwick. Bo't b	Red Cross V. Co., St. Louis. Own make Red Cross V. Co., St. Louis
Meenah Menasha Menasha Menasha Neenasha Neenasha Neenasha Green Bay Baloit	Marion Lake Mills Oshkosh Oshkosh Amherst
2 C. S. Briggs & Co. 2 E. W. Buboltz 3 Earl Kearl John Beth & Sons Co. 3 A. L. Platten 3 A. L. Platten 4 A. L. Platten 5 A. L. Platten 5 A. L. Platten & Sons Co. 6 F. Decrement 8 F. Decrement 9 F. Dec	2 Libby & Engler 2 C. F. Voyer 2 C. F. Voigt 2 C. J. Voigt 8 A. M. Richter & Son
MARAMARA A A A A A A A A A A A A A A A A	June June June June June

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Report of the Wisconsin

Analysis of Vinegar - Continued.

Comments.	Solids low. Passed. Passed. Passed.	For gn sugars Below solids. Passed.	Slightly weak Forkh sugars Condenne 1. Passed.	Passed Acid below. Condemoed, Not cider.	Solids low. Solids below. Condemned.	Passed. Solids doubt-	Condemned. Passed. Passed. Passed. Passed. Passed.	Passed. Passed. Passed. Passed. Condemned. Condemned. Passed. Condemned.
Malic acid.	Large amt Small amt Large amt	Traces Present Large amt	Large amt Small amt None	Present Present None		None		Large amt Large amt Large amt none Large amt
Actic Solids acid per cent.	1.85 2.2.2.2 3.3.3.2.3.3.3.3.3.3.3.3.3.3.3.3	41.2.2 84.4.8	22.23.	2. 4. 64.2. 27.2.2. 0.1.	1.56	4.71	4.50	25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
Actic acid par cent.	4.4.8. 8.8.8. 1.8.8.4	4.4.6.4 14.6.4 14.6.9	8.4 × 4 8.1.99 4.1.92	4477044 22.82.22.23	5.11.05	4.59	41-72-444 8828888	646444484 01083 0108 0108
Sold as—	Cider Cider (2d lot) Cider Cider	Cider Cider Cider Cider	Cider Cider Cider Colored, distilled	White, distilled. Cider Cider Cider Cider Cider	Cider Cider Cider	Brown distilled		Red cross cuder. Math. White distilled Cider. Cider. Madison Co. cider. Older. White distilled
So'd by-	Sprague, Warner & Co., Chi Red Cross V. Co., St. Louis E. L., Prussing & Co., Chic Rediske Vin. Co., Milw	C. E. Meyers & Co., Freeport W. H. Bunge & Co., Chic Genesee Fruit Co., N. Y.	Amer. Vin Works, Milw Red Cross V. (°o., St. Louis	Dahinden & Gallasch, Milw. W. Bungo & Co., Chic Alden Vin. Co., St. Louis Bo't, at Lake Mills Anner Vin. Works. Milw.	Farmer's cider C. H. Rosensteil & Sons,	Freeport The P. Bechtner Co., M.I	W. M. Barrett, Chicago. Amer. Vin, Wk's, Mil Albion C. V. Wk's, N. Y Ills Vin. Co., Chic C. E. Meyer & Co., Freeport, Amer. Vin. Wk's, Mil	Hed Cross VIII. Co., St. L., H. J. Heinz Co., Pittsburgh, F. C. Johnson, Kishwankee, Dean Bros. & Lincoln, Chic. Red Cross Vin. (Co., St. L. H. J. Heinz Co., Pittsburgh
Postoffice.	La Crosse La Crosse Milwaukee	Marshfield Neillsville Neillsville Milwaukee	Fond du Lac Menasha Beaver Dam Sheboygan	Sheboxgan Waurun Lyndon Station Lake Mills	Eau Claire Eau Claire Evansville Evansville	Columbus		Marton Sheboygan. Sheboygan. Waupun Walton Junct. Groen Bay Milwankee.
Sent by-	Bergoust Groc. Co C. M. Hawloy The Wm. Scinmeyer Co. O. Huum & Co.	H. C. Koenig Stannard & Meader Stannard & Meader Wm. Steinmeyer & Co	E. Plumb R. W. Schlagel J. B. Scherubel H. C. Prange	H. C. Prange Roland & O'Dwyer Scaulan Bros R. Hooper Ingold Bros	F. N. Larson F. N. Larson F. B. Hatfield F. B. Hatfield	Whitcomb & Fcwler	A. C. Nott & Son (fee, Landweer J. Topp & Bro. Co J. Topp & Bro. Co Berg & Danielson Berg & Danielson Berg & Danielson	Libby & Engler Libby & Engler H. C. Pranze & Co. S. A. Davidson D. E. Thorpe Winsfard & Co. Win Steinmeyer & Co. Kronke Bros.
1897.	× × × ×	June 15	10,10,10	June 15 June 16 June 16 June 16	June 16 June 16 June 16	June 23	Tangang Tang T	dune 22 dune 2

Passed. Passed. Cassed. Condemned. Passed. Condemned. Passed. Passed. Passed. Passed. Passed. Passed.	Condemned. Inassed. Passed. Passed. Passed. Passed. Passed. Passed. Condemned. Condemned. Condemned. Condemned. Condemned. Passed.	Passed, Passed, Forkn sugars Porkn sugars Condemned. Passed. Passed. Passed. Passed. Passed. Passed. Passed. Passed. Passed. Passed. Passed. Passed.	Associated Passociated Passoci
Present Present Present None Present Present Present Small amt. Present Present Present Present	Doubtful Present Slight amt. Slight amt. Large amt. None None None None None None None None	Slight amt. None Large amt. Slight amt. Slight amt. Large amt. None None Slight amt. Fresont Presont December	Large amt Slight amt Slight amt Present
232 21232 232 2233 232 233 232 233 232 233 232 233 232 233 233	40 40 0 6000 2522 352822555582	881884889 884684 9	12:01 12:01 12:01 12:02 12:02 12:03
4454444446 888888888	22222222222222222222222222222222222222	4×44×444444444444444444444444444444444	4444444 64468884
Older Colder Colder Colder Colder Colder Colder Colder	Fruit vinegar Cider Cider White distilled Cider	Cider.	Cider White distilled Brown distilled Cider Cider Cider
H. F. Spinke & Co. C. E. Meyer & Co., Freeport. Amer. Vin. Wk.s. Milwaukee Red Cross Vin. Wk.s. St. L. H. J. Heinz Co. Pittsburgh Corbin, May & Co. Chic. F. C. Johnson, Kishwankee	C. E. Mayers & Co., Freeport C. E. Mayers & Co., Freeport Rodiske Vin. Co., Milwankee The P. Bechmer Co., Milw J. Hoinz Co., Pittsburg C. E. Mayers & Co., Freeport C. E. Mayers & Co., Freeport C. E. Mayers & Co., Freeport S. Warner & Co., Chicago C. E. Mayers & Co., Freeport S. Warner & Co., Chicago G. E. Mayers & Co., Pittsburg G. E. Mayers & Co., Pittsburg H. J. Hainz (Co., Pittsburg H. J. Hainz (Co., Pittsburg	Prussing Cider Co., Chicago Amer. Vin. Works, Milw. Dahinden & Gallasch. W. H. Burne & Co., Chicago Griges, Cooper & Co., St. P. Corbin. May & Co., Chicago The P. Bechiner Co., Milw And Choss Vin. Co., St. L. And Choss Vin. Co., St. L. Rediske Vin. Co., Milwaukee Rediske Vin. Co., Milwaukee Rediske Vin. Co., Milwaukee	Reid, Murdock & Co H. I. Heinz Co, Pirrsburgh, Amer. Vin. Wiss, Mil Amer. Vin. Wiss, Mil J. Cushing & Sons, Dub., Ia C E. Meyer, Freeport.
Eau Claire Eau Claire Gentralia Hancock. Randolph La Crosse La Crosse Kilbourn		Prairie du Sac Rox Lake Plattevillo Plattevillo Hancock Glenwood Mazonanie Centralia Augusta Randolph Kewaune La Crosse La Crosse	Marinette Marinette Fox Lake Fox Lake Eau Claire Eau Claire
	July 2 J. Gardiner July 2 J. Gardiner July 7 J. S. Parkinson July 7 J. S. Parkinson July 7 A. Dietl July 7 A. Dietl July 7 F. L. Powers July 7 F. L. Powers July 1 F. L. Powers July 14 C. Nort & Son July 14 A. C. Nort & Son July 15 F. L. Warner July 16 Schneiler, Felix Co		ស៊ីស៊ីស៊ីស៊ីស

Analysis of Vinegar -Continued.

Comments.	Condemned. Passed. Passed. Passed. Passed. Solids d'btful Condemned. Passed. Passed. Condemned. Condemned. Condemned. Condemned. Condemned. Passed. Condemned.	Condemned. Condemned. Condemned.
Malic acid.	None Slight amt Large aut. None None None Large aut. Traces Large aut. Present	Small amt None None
Solids per ct.	85 82 9	1.28 1.56 .63
Acetic acid per ct.	44644668446444444444444444444444444444	8.94 8.54 8.56
Sold as —	Cider	Cider Cider Cider
Sold by—	(No. 2) (No. 3) (No. 5t. Louis Alden Vin. Co. St. Louis Alden Vin. Co. St. Louis Genesse Fruit Co. Lans g. Barrett & Barrett, Chicago. H. J. Heinz & Co., Pitsburg G. E. Meyer & Co., Freeport Barrett & Barrett, Chicago. C. E. Meyer & Co., Freeport Barrett & Barrett, Chicago. C. E. Meyer & Co., Freeport Barrett & Warrett, Chicago. C. E. West & St. L. Bed Cross Vin. Co., St. L. Chicago. Chica	Mich. Cider Co., Chicago Ros-nateil & Son, Freeport.
Postoffice.	Beloit Beloit Beloit Beloit Beloit Bacine Racine Guine Guine Guine Marinette Marinette Marinette Genesse Genesse Genesse Ha Crosse I.a Crosse Biroy Elroy Elroy Elroy Elroy Elroy Elroy Blroy Blroy Blroy Blroy Blroy Antigo Menekannee Janesville Menekannee Janesville Menekannee Janesville Menekannee Janesville Menekannee Janesville Menekannee Janesville Menekannee	Oconomowoc Tomah Evansville
Sample sent by—	Elliott & Skougsted Gliott & Skougsted Gl. A. Rickeman G. A. Rickeman G. A. Rickeman G. A. Rickeman H. M. Johnston & Co. Miss F. H. Hawks Misson H. J. Newell J. A. Stratz Bergoust Groc. Co. H. J. A. Stratz Bergoust Groc. Co. W. C. Jacobs L. M. Co. C. C. Olin Mulder Bros. Mulder Bros. Mulder Bros. Draw & Bullinger L. M. Larson H. S. Johnson R. C. C. Olin Mulder Bros. Solon A. Davidson H. Goedecke	Walther & Frederickson Geo. H. Persons & Co Emery & Searles
1897.	July 311 Jul	Sept.10 Sept.10 Sept.10

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Passed. Condemned. Passed. Condemned.		Condemned. Condemned.	Condemned. Passed. Passed.	For sugars. Condemned. Passed.	Condemned.	Unfermented	Solids below. Condemned. Doubiful s'de	Passed. For. sugars. Condemned.	Passed. Passed. Passed.	Condemned.	Condemned. Passed. Passed. Condemned.
Large amt Large amt None	Large amt Small amt Present		Piesent Large amt	Large amt Present	None	Very l'rge amt None None	Present Slight amt	Large amt None None	Present	Present None	Present Present None
2.03	42.38.25 42.38.25		2.27	2.1.8.2 2.4.8.2.	¥.ÿ.‡.	87.25		25 . 82 25 . 35 . 35	22222 22222 412222	3.7. 2.2. 2.8. 3.0.	1 42 2 34 2 50 13
4.2.4.8 8.83.4 8.62.9	4448 8448 458 89	4 2 4 2 2 2 2 9	8.4.0.4 6.35.53	444	23.82 2.82 2.82	2.4.8.4 2.6.5.4	2012	4444 8825	44444 8000	9444 83223	4 32 11.1 5.46
Cider Cider Distilled white	Older Cider Cider Cider Cider	Cider	Distilled brown Cider Fruit vinegar	Holly cider vin Cider Cider	Cider Retailed as cider Ci. der	Cider. Cider.	Cider Cider Cider	Cider Cider Cider Cider	Cider Cider Cider Cider Cider	Cider Cider Cider Cider	Cider Cider Cider Improved apple cider
Barrett & Barrett, Chicago. C. E. Johnson, Kishwaukee. Reed, Walsh & Lange. C. E. Mayer & Co., Freeport. Merriam, Collins & Co. Chi.	cago C. E. Meyers Co., Freeport. Mich. Cider Co., Chicago Mich. Cider Co., Chicago	Alden Vin. Co., St. L	C. E. Meyer & Co., Freeport.	Lue r Becher Co., M.L Berl', Walsh & Lange, Chi. Leroux (ider & V. Co., Tol. Bo't by W. W. Chadwick	Bo't by W. W. Chadwick The P. Bechter Co, Mil Farmer's	Barrett & Barrett, Chi Sprague, Warner & Co., Chi	Beal's vinegar Rosensteil & Sons, Freeport.	The P. Bechter Co., Mil. C. E. Meyers & Co., Freep'rt Red Cross Vin. Co., St. L.	Sprague, Warner & Co., Chi Bo't by W. W. Chadwick Bo't by W. W. Chadwick Bo't by W. W. Chadwick Bo't by W. W. Chadwick	3888	Barrett & Barrett, Chi H. J Heinz & Co, Pittsb'rg Jas. Cushing & Son
Berlin Berlin Beloit Lodi	Waupun. Merrill Milwaukee. Milwaukee.	Tomah Mondovi Flack Earth Black Earth	Darien Beloit Superior	Beloit Marinette N. La Crosse	La Crosse Milwaukee Oregon	Sheboygan F'lls Sparta Tomah	Beloit Beloit Elroy	Elroy Osseo Osseo Menomonee	Menomonee N. La Crosse N. La Crosse La Crosse La Crosse	La Crosse La Crosse La Crosse La Crosse	Evansvillle Milton Eau Elaire Eau Claire
Sept. 10 A. O. Wuensche Sept. 10 A. O. Wuensche Sept. 10 H. S. Clifford Sept. 13 E. Richmond	Rank Fric Wells Walls	1.15 Geo. H. Persons. 1.17 O. F. Howen. 1.23 G. Roemhild.	1.24 G. W. Benner 1.24 McAlpin Groc. Co. 1.24 W. Hunter 1.25 W. Hunter	L. 23. H. S. Clifford L. 23 A. C. Nott & Son L. 23 Jac. Hahn	25 25 25 25 25 25 25 25 25 25 25 25 25 2	28 J. J. Owsley. 29 J. J. Owsley. 29 G. H. Persons.	S S S S	8888 500-	SESSO J. C.	SSSS Series Carlto	6 J. W. Calkins. 6 Miles Rice. 6 Arthur Smith. 8 Arthur Smith
2000	Sept. 15 Sept. 15 Sept. 15 Sept. 15	Sept.	3333	8888	2 2 2 2 2 2 2 2 2 2 2 2 2	Kept Kept Kept Kept Kept Kept Kept Kept	Sept to	8885 885 865 865 865 865 865 865 865 865	rept Rept Pert	Sept.	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

Report of the Wisconsin

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Comments.	Acid below. Acid below. Acid below. Passed. Passed. Acid below. Acid below. Acid below. Acid below. Acid below. Condemned. Condemned. Condemned. Condemned. Acid below. Passed. Acid below. Passed. Acid below. Passed. Condemned. Acid below. Passed. Condemned.
Malic acid.	Present Barga amut Slight amt Slight amt Slight amt Present Present Present Present None Present Present Present Present Present Present Present Present
Solids per cent.	202361222111
Acetic acid per cent	222254452222342222222222222222222222222
Sold as—	Cuder Cider
Sold by —	Sprague, W. & Co., Chicago. G. I. Robison., il. Red (ro. s Vin. Co., St. Louis Alden Vin. Co., St. Louis Red (ross V. Co., St. Louis Red (ross V. Co., St. Louis Red (ross V. Co., St. Louis Flanklin, May V. Go., St. Louis Red (ross V. Co., St. Louis Sprague, Warner & Co. Clicago. Clicago. Warner & Co. Freeport Sprague, Warner & Co. Anerican Vin. Works, Milw American Vin. Works, Milw Anden Vin. Co., St. Louis Farmer's cider Wm. Henring, Chicago.
Postoffice.	Enu Claire Randolph Randolph Randolph Maiton Miton Maiton Maison Madison Madison Maitson Madison Maitson Columbus Columbus Columbus Wonewoc Randolph Madison Madison Spooner
Sample sent by -	Arthur Smith F. L. Warner F. L. Warner K. L. Warner Miles Rice. Horrows & Sons H. A. Dierfield & Son H. S. Dinooge B. B. Unris F. S. Dinooge Artiut Smith Schuller, Felix & Co. J. F. G. Holtz F. Holtz F. G. Holtz F. L. Warner Fuller & Johnson (Co. Gould, Wells & Black- barn Co. D. E. Richardson
1497.	00 00000000000000000000000000000000000

Condemned Condemned Passed Passed Passed Passed Passed Passed Passed. Condemned.	Condemned. Passed. Passed.	Condemned. Passed:	Passed. Passed.	Passed.	Passed. Amt. insuf. Condemned. Condemned. Condemned.	Condemned. Passed. Condemned.	Passed.	
Large amt Present Present Present Present Present Large amt		None			Large amt	None	Present	Large amt Present
2 2 2 2 4 5 2 4 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6		.23	3.67	2.51	2.1.1.8 2.1.28 3.03	8.8.8.	2.77	2.13
884447723444 8844447733444	3.62 4.33	3.45	4.53	4.03	4 4.4.2.8. 11 52.88.8.	8.3.74 3.06	4.42	**************************************
Cider. Cider. Cider. Cider. Cider. Cider. Cider. White distilled. White distilled. Cider. Cider. Cider. Cider. Cider. Cider. Cider.	Sold as cider vin White distilled White distilled	Cider	Cider		Cider Cider Cider Cider Cider Cider Crub vinegar	Cider. Cider. Cider.	Cider	Cider.
Red Cross Vin. Co., St. L., C. B. Meyer & Co., St. Meyer & Co., St. Presport The P. Bechuer Co., Mil. The P. Bechuer Co., Mil. Amer Vin. Wks., Mil. Amer Vin. Wks., Mil. Leron X. & Y. Vo. Toledo The P. Bechuer V. Co., Oil (Bo't by W. W. Chadwick). (Bo't by W. W. Chadwick). (Bo't by W. W. Chadwick).	B't by N. J. Fie d. A. M. Richter & Son. (Bc't by N. J. Field) A. M. Richter & Sons.	(Bo't by N. J. Freda) (Miller, Pettingill & Foster A. M. Richter & Sons	(Bo't by N. J. Field) Leroux C. & V. Co., Toledo. (B't by N. J. Field) Joannes Bros., Green Bay	(Bo't by N. J. Field) Red Cross V. Co., St. Louis (Bo't by N. J. Field) Bo't by N. J. Field	Farmer's cider Rediske Vin. Co., Milw Bo't by N. J. Field, Milw	The P. Bechtner Co. (Bo't by N. J. Field).	Rediske Vin. Co., Milw	H. J. Heinz Co., Pittsburgh. Red Cross Vin. Co., St. L
Spooner Neepoosa Janesville Beloit Ashland Ashland Ashland Marinette Marinette Racine Racine Racine	Milwaukee Manitowoc Manitowoc	Marinette	Green Bay	Green Bay	Mt. Horeb Janesville Whitewater Whitewater	Milwaukee Deerfield	Madison	Madison Independence
D. E. Richardson. Brooks Bross. C. B. Prillips. Elliott & Skougsted. C. N. Cramer & Co. A. C. Nott & Co. Hanbuy Bross. F. Harbridge. E. H Brill Estate	Wm. Weichert	23 C. Reinke & Co	Winegard & Co		F. Decremer P. F. Temby H. A. Watson A. B. Scholl J. Roehl	A. Halleritt Nelson & Christia L. L. Olds	Gould,	ě 🗷
	Dec. 22 Dec. 23 Dec. 23	Dec. 23 Dec. 25	Dec. 23	Dec. 23 Dec. 23	Dec. 22 Dec. 24 Dec. 24 Dec. 24 Dec. 27 Dec. 27	Jan. 27 Jan. 27 Jan. 27	Mar. 3	Mar. 3 Mar. 18

Report of the Wisconsin

Analysis of Vinegar - Continued.

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Comments.	Condemned. Parsed. Condemned. Parsed.
Malic acid.	None Condemned. None Condemned. Present Parsed. Present Parsed. Present Condemned. Foreign sug. Present Parsed. Present Present. Present Present. Present Present.
Solids, per ct.	27 None. 2 22 2 Present 2 2 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Acetic neid per ct.	4 404444448844444444
Sold as —	Cider. White distilled Cider.
Sold by -	ndependence. Amazon V. & T. Co., Daven- logowy Ameriam, Collins & Co. logowy Barrett & Barrett, Cliic laneaville Barrett & Barrett & Barrett laneaville Barrett laneavi
Postoffice.	H
Sample sent by —	Mar. 18 M. A. Garthus. Mar. 18 M. A. Garthus. Mar. 18 C. B. Button & Co. Mar. 19 C. B. Button & Co. Mar. 24 H. W. Cramer. Mar. 24 H. W. Cramer. Mar. 24 H. W. Cramer. April 19 M. J. Regan & Bro. April 17 A. M. Reithter & Son. May 26 A Garthus. May 26 A Garthus. May 26 Morissy Bros. May 27 L. Landweer. G. Landweer. June 4 G. Landweer. G. Landweer. July 2 M. Koltroery Co. July 2 M. A. Koltroe. May 24 L. L. Ods. May 24 L. L. Ods. May 25 M. Miner. Sopt. 6 Mills & Miner. Sopt. 6 Mills & Miner. Sopt. 20 Birkmose & Wiberg Co. Bopt. 20 Birkmose & Wiberg Co.
1888.	Mar. 18 Mar. 18 Mar. 18 Mar. 18 Mar. 24 Mar. 24 May 26 May 27 May 28 May 26 May 27 May

HONEY.

Strained honey has, perhaps, been more subject to adulteration than most articles of food.

Glucose.

The common adulterant is glucose syrup. As a rule jars or glasses holding from six to eight ounces of glucose are put up, containing in addition a small portion of buckwheat or other strongly flavored honey in the comb. This small piece of comb honey, with possible fragments of the bees, lends a genuine appearance and gives it its characteristic flavor.

Composition.

Natural honey is essentially a mixture of invert sugar, that is, consists of glucoses, dextrose and laevulose. The laevulose being stronger in rotatory power than dextrose at the ordinary temperature, pure honey turns the plane of polarized light to the left. After inversion honey should be but slightly more laevo-rotatory than originally. Glucose syrup consists largely of dextrin and dextrose, with varying smaller amounts of maltose. Commercial glucose syrup ordinarily has a dextro-rototary power of from 150 to 170 degrees of the cane sugar scale when the normal weight is used.

Detection of adulteration.

Glucose syrup then is shown to be present when the honey is strongly dextro-rotatory, and this property is not lost to any extent upon inversion. When cane sugar is added to honey, the sample will be dextro-rotatory according to the per cent. present, but after inversion will be laevo-rotatory. The per cent. of cane sugar can be approximately calculated from the difference.

Sulfaric acid test for glucose. A ready test which gives valuable indications of the presence of large amounts of glucose syrup depends upon the fact that when concentrated sulphuric acid acts upon glucose sulphonation takes place, producing fluid products. When honey or cane sugar is similarly treated, a great amount of heat is evolved, and the mass swells to five or six times its volume, producing a spongy, charred, solid mass. This test may be readily performed by adding 15 cc. of concentrated sulphuric acid to an equal amount of honey in a tall beaker and rapidly mixing with a stirring rod. The test affords no quantitative results, however, and the presence of small amounts of honey or cane syrup are

sufficient to produce the swelling and carbonation. It will, however, under these circumstances, take place more slowly.

The results of the examination of eighteen samples of honey are here tabulated, three of which are shown to be adulterated, two containing glucose syrup.

Date.	Samples sent by	Post Office.	Polarization.		Remarks.	
Dute.	acc. Samples sent by Post Office.		Direct. Indirect.			
1897. Feb'y 24 Feb'y 24	Franklin, McVeagh & Co., 'Cal-	Madison	-13 9		Genuine.	
	ifornia White Clover Comb Honey"	Chicago	103.1	102.6	Glucose. Sent by N.E. France, Platteville.	
Feb'y 24 April –	Herman Inse. (Sold by E. R.		31.1		Adulterated.	
-	Pahl & Co.)	Milwaukee Watertown		-27.	Genuine. Genuine.	
Oct. 21 1898.		Sheboygan		-20.1	Genuine.	
March 11 May 24	I. Karger D. B. Bailey Bo't of Schacht Bros "Pure	Milwaukee Appleton		136.	Glucose. Genuine.	
Sept. 1	Honey, J.A. Lamon, Chicago."	Racine Fond du Lac. Milwaukee	-6.8	-22.6 -13.6 -11 2	Genuine. Genuine. Genuine.	

SYRUPS.

The syrups on the market are sold largely under fanciful trade names, such as "Crystal Drips," and are seldom sold as cane syrup or otherwise. All of the syrups so far examined have been found to contain glucose. As properly-made: glucose is a whole-some food, these syrups would be recognized as ordinary articles of food, but should then be labeled as "mixed" or "compound" syrups, in accordance with the law.

Doctored syrup.

Coloring with aniline colors is sometimes practiced. Bleaching is also frequently resorted to, and soured syrups are neutralized and reboiled. The latter goods are unquestionably deleterious and their sale should be suppressed.

FLAVORING EXTRACTS.

After the passage of the pure-food law examination was made of the flavoring extracts then upon the market. In this work advantage was taken of the dextrorotation of lemon oil solutions in alcohol. A rough estimate of the amount of alcohol present was obtained from the specific gravity of the extracts. The presence of sugar or other solids in material amount would vitiate results obtained in this manner. Oil of lemon, having a specific gravity of .750, is sufficiently near that of alcohol not to materially affect these results where the oil is present in quantities of less than 5 per cent. The results obtained in the preliminary examination are set forth in the appended table, and show that the lemon flavoring extracts then on sale contained alcohol in amounts varying from 14 to 93 per cent., by weight, and amounts of lemon oil varying from zero to 8 per cent. The investigations, moreover, seemed to show that many of these extracts contained oils foreign to oil of lemon, but that these were used in exceedingly small amounts. Before proceeding further it was found desirable to formulate a systematic method for the examination of these extracts.

LEMON EXTRACTS.

Tabulated Results of Preliminary Examination of Lemon Extracts, made in May, 1898.

	Rota- ti on.	Alcohol. Per. ct.		Per cent.
W-llana & Haffman (Aama)	0.3	97.97	0.1	0011
Wellauer & Hoffman (Acme)		35.25		Oil lemon.
Puritan Standard	0.4	32 56	0.1	(Lemon grass.)
Acme	0.5.	27.93	0.15	Oil lemon.
Gillett's	15.7		4.62	Oil lemon.
Souder's	0.6	41.80	0.2	Oil lemon.
Household	0.9		0.25	Oil lemon.
Van Duser's	15.4	91 18	4.53	Oil lemon.
Dr. Price's	20.8	83 9	5 90	Oil lemon.
Rival Extract (K. & D.)	0.3	37.39	0.1	Oil lemon.
Drake Bros. (druggists)	18.8	86.8	5.53	Oil lemon.
Economy	0.0	16.46	None	Oil lemon (capsic.)
Fisher's (Hilbert's old)	12.0	74.0	3.53	Oil lemon.
Meisner & B's Triple ext. bulk	1.6	58 27	0 47	Oil lemon.
Chapman's (C. S & Co.)	9.9	71.88	2.91	Oil lemon.
Souder's (new uncolored)	0.4	41.64	0.1	Citral.
Burnett's	28.0	93.18	8 24	
French Standard Lemon	0.4	39.30	0.1	Oil lemon?
Phoenix Extract	4.0	72.52	1.2	Lemon grass.
Bastine's	8 2	80.13	2.41	Oil lemon.
C. C. C. Favorite	0.0	13.92	None	Citronella (nutmeg.)
Livesey's Lemon (Mil.)	7.3	70 04	2.1	caracter (admics)
Chapman's		71.88	3 0	

As no standard methods were in use for the examination of lemon flavoring extracts, it was thought desirable to make systematic examination of the oils used, to devise suitable methods for the examination of these extracts.

Properties of lemon oi.

Optical methods have proved most satisfactory for this purpose. The following table gives the behavior of oil of lemon and of the various oils and substances used in the production of adulterated and sophisticated lemon extracts.

OPTICAL CONSTANTS OF ESSENTIAL OILS.

	ROTATION	n in Alc.	Rotation	Defract.	
	5 per cent.	1 per cent.	of oil.	at 30C.	
Oil of Lemon, (F. B.)	16.2	3.3 3 2	64. 63.2	67-71 64-72	
Oil of Lemon, (S.) Oil of Lemon, (H.) Oil of Limes, (E. & A.) Limonene, (E. & A.)	16.5 9.2	3.3 1:8 1.8	64.3 36. 36.	68-72 67-71 83-87 87-95	
"Soluble Oil Lemon," (F. B.). "Citral 80 per cent." com. Oil Lemon grass, (D. B.).	1.7 1.5	3 -3	7. 5.9 —4.7	82-93 80-86 80-90	
Oil Lemon grass, (F. B.) Oil Lemon grass, (F. B. double rect.) Oil of Citropella, (D. B.)	$ \begin{array}{r} -1.1 \\ -1.6 \\ -2.8 \end{array} $	2 3 6	-4 3 -6.3 -10.9	83-95 82-90 78-83	
Citronella aldehyd., (F. B.)Oil Turpentine	1.7	3	6.6	36-38 59-61	

The rotation was determined in the Schmidt & Haench sugar polariscope upon the solution in a 200 mm. tube, using the cane sugar scale. The figures given in the column for the concentrated oil are recorded in circular degrees.

Refraction

The refraction is given in degrees from the butyrorefractometer of Zeiss at a constant temperature of 30 degrees. It will be noticed that many of the oils exhibited wide dispersive power which later property proves a valuable aid in their detection in the precipitated oil obtained in small quantities from flavoring extracts in the process of examination.

Rotation of oil lemon.

From these constants it will be seen that oil of lemon will produce a dextro-rotation of about 3.4 degrees for each per cent. of oil present in alcoholic solution when examined under above conditions.

Citral.

Soluble oil of lemon or commercial citral can only be used in amounts of 0.33 per cent. or less, owing to the pronounced flavor. Upon this basis, the largest quantity of these oils which could be used in an ex-

tract would produce an effect of 0.1 to 0.2 degrees, or about the same effect as 0.1 per cent of oil of lemon.

Lemon grass.

Oils of lemon grass, citronella and citronella aldehyde are used in much smaller amounts, so that while their tendency is to counteract the optical effects of oil of lemon, their actual effect is wholly insignificant. All are used in amounts less than 0.1 per cent.

Oil limes.

Oil of limes is slightly more expensive than lemon, and equally insoluble in weak alcohol. There is, therefore, no incentive to its use.

Limonene.

The same may be said of limonene, but if either of these were used they would be indicated by the greater refraction of the recovered oil.

Oil lemon, estimation.

In the absence of sugar, then, the oil of lemon may be readily determined in flavoring extracts by polarizing the extract in a 200 mm. tube, and dividing the results by 3.4. A ready check upon the quantity of oil thus found and a portion of the oil may be obtained for examination with the refractometer, by the following process. A flask similar to a Babcock skim-milk bottle is obtained. This bottle should have a capacity of approximately 80 cc., and have two necks, the larger tube entering at the side and passing almost to the bottom of the flask, and the smaller (used for measuring the precipitated oil) should be about 3 mm. internal diameter, and 14 cm. in length. Such a tube will contain 1 cc. between its extreme graduations. These should be divided into ten equal parts, and each tenth sub-divided into fifths. Each of the smallest divisions will then indicate 2 per cent. of oil when 10 cc. of extract is used. For the purpose of examination, 10 cc. of the extract is pipetted into the flash above described. About 10 drops of concentrated hydrochloric acid are added (sulphuric acid must not be used), together with 30 cc. of warm water. The flask is then placed in water at about 70 degrees c. with occasional shaking until the oil separates, which will usually take about 30 minutes. The flask is then filled with warm water by means of the side tube and whirled in the centrifuge, thus bringing the oil into the graduated neck. Fairly satisfactory results may be obtained with the ordinary Babcock bottle, but the precipitation is not as complete as when a larger proportion of water is used, and the measurement of the oil is unsatisfactory unless 20 cc. of the extract is

Correction for solubility.

used. Recovery of the oil by the above process is most complete with extracts containing 5 per cent or more of oil. As a rule a 6 per cent. extract would yield 4.8 per cent. by precipitation; a 5 per cent. extract, 3.8 per cent., and a 2.5 per cent. extract, about 1.2 per cent. The results found by precipitation should then be corrected accordingly, after which the results should agree within .2 per cent. of those obtained by polarization, unless foreign optically active substances are present.

Soluble

Soluble oil of lemon is recommended to be used in amounts of about 0.33 per cent. only, but if used in larger amount the greater proportion would be precipitated by this method. Three per cent. may be recovered from a 5 per cent. mixture in stronger alcohol.

Limonene

The claim is frequently made that undesirable lemonene is all that is excluded by making an extract weak in alcohol, and subsequently clarifying with magnesia. This statement is misleading. With the limonene sample obtained from Eimer & Amend, 3.4 per cent. was recovered from a 5 per cent. solution by the above method, showing that in very weak alcohol (about 12 per cent.) it is even more soluble than pure oil of lemon.

In recovering oil from extracts containing less than 2.5 per cent. of oil, and which are always weak in alcohol, 20 cc. may be used for precipitation. A portion of the precipitated oil may be removed with a 2 cc. pipette and examined with the refractometer. If pure oil of lemon has been used, the refraction will be normal, as given in the table.

Abnormal refraction.

Oil of limes, limonene, or citronella would be indicated by a higher refraction, as would soluble oil of lemon. Citronella aldehyde and oil of lemon grass would tend to lower the refraction, but neither could be used in an extract in quantities sufficient to greatly alter the refraction.

Alcohol.

For the accurate determination of alcohol 25 cc. pipetted into a 100-110 cc. sugar flask, about 2 cc. each of concentrated solution of AlCl₃ and Na₂HPO₄ are added and the flask is filled to 110 cc. with water, and the contents shaken. This is then filtered through a dry filter and 100 cc. of the filtrate, together with 25 cc. of water, are distilled to 100 cc. received

in the same sugar flask, and the alcohol found from the Sp. Gr. of the distillate. This figure plus 1-10 and multiplied by four will give the alcohol per cent. The precipitated AlPO₄ entangles the oils and facilitates their removal by filtration. In most cases, however, it is sufficient to prove the absence of sugar, glycerine or solid extract by evaporating 10 Gms. on the water bath. These substances being absent and the specific gravity of oil of lemon and stronger alcohol being nearly identical (oil of lemon .850 and stronger alcohol .820), when an extract does not contain over 5 per cent. of oil of lemon, the alcohol may be approximated to within less than 1 per cent. by estimating from the specific gravity of the extract itself.

(The liability of error decreases rapidly as the alcohol passes below 75 per cent., owing to the impossibility of there being sufficient oil of lemon to materi-

ally interfere.)

Methyl alcohol may be looked for by adding 10 cc. of a fresh 1 per cent. solution of sodium nitro-prusside to an equal volume of extract and then making the mixture strongly alkaline with ammonia. Within a few moments a red color will appear when wood alcohol is present. The oil of lemon does not interfere.

Unfortunately this test is valueless for detection of the more purified grades of methyl alcohol, such as "Columbian Spirits" and "synthetic alcohol." These can only be detected by the more complicated tests, as

described in "Allen."

Vapor tension.

Methyl

alcohol

The presence of methyl alcohol is readily indicated by the increased vapor tension. If a solution of ethvl alcohol and water is prepared of the same specific gravity as the sample in question and portions of each are injected into sealed tubes having Torricellian vacua, the methyl alcohol will be indicated by a considerably greater fall of the mercury in the tube containing the suspected sample.

Coloring

The lemon extracts on the markets are generally colored by aniline dves. Curcuma is seldom used owing to its liability to fade. Indications of the coloring matter used are frequently yielded upon the addition of hydro-chloric acid to the extract in the process of precipitation of the oil. Sulphonated azo dves (tropaeolins) are frequently used and react pink or red

6 Dairy.

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upon the addition of hydro-chloric acid. Di-nitrocresol is frequently used and indicated by the bleaching of the solution upon the addition of the acid. The coloring matters are best obtained by evaporating the alcohol and dyeing skeins of wool with the aqueous solution of the dye. Colors may then be identified as indicated in Weyl's "Sanitary Relations of the Coal Tar Colors."

LEMON EXTRACTS EXAMINED.

N .1	44 4000	A43 4 Ct 1
march	11, 1898.	Atwood & Steele. Alcohol 78.33, oil lemon 2.3 per cent. Refraction 60 to 65 degrees. Colored.
	25, 1898. 25, 1898.	"Chapman's Lemon." Polariscope reading 14.9, oil lemon 4.4 per cent. "Challenge Lemon." Alcohol 75.2 per cent., polariscope reading 14.3,
April	6, 1898.	oil lemon 4.2. "Carnival Brand." Alcohol 61.5, polariscope reading 6.9, oil lemon 2.1 per cent.
April May	6, 1898. 23, 1898.	Wright's Standard. Alcohol 16.45, polariscope reading 0.2, oil lemon 0.1. Lemon Extract purchased from David Dickson, Milwaukee. Alcohol 21 per cent. by weight, polariscope reading 0.2, oil of lemon 0.1. Coloring matter napthol yellow.
May July	26, 1898. 1, 1898.	Lemon Extract. Modješka. Roth & Co. Alcohol 59.2. oil lemon 0.4. Lemon extract bought of Charles Livingston, Kenosha. "Special Extract Lemon," Lakota Manfg. Co., Chicago. (Said to be made by Gillette & Co., Chicago.) Alcohol 20.6 per cent., polar. reading 4.6, cane sugar 1.31 per cent., rotation due to oil 0.6, equivalent to .2 per cent. oil of lemon. Colored.
July	5, 1898.	"White House Brand," sent by G., W. & B., Madison. Alcohol 72.74, polar reading 13.5, equivalent to 4 per cent. oil lemon. Colored.
July	5, 1898.	"Union Triple Extract Lemon." Steele-Wedeles, Chicago. Alcohol 94.28 per cent., polar. reading 23.1, oil lemon 6.7 per cent. Color lemon peel only.
July	21, 1898.	Bo't at Fair Store, Madison, July 6, "Globe Extract Lemon," Chicago. Alcohol 7.93 per cent., polar. reading 0 0, oil lemon none. Colored.
Aug.	22, 1898.	Grand Union Tea Co. Lemon. Alcohol 80.75 per cent., polar, reading
Aug.	24, 1898. 24, 1898.	Franklin, McVeagh & Co., "Mammoth" Lemon. Alcohol 35.05 per cent. "Chapman's Ten Cent Lemon—New." Alcohol 71.7 per cent., polar. reading 21.5, equivalent to 6.3 per cent. oil. Precipitation with correction showed 5.6 per cent oil; difference due to presence of sugar.
Sept.	5, 1898.	Color tropoeolin. "Standard Extract Lemon," Wisconsin Tea Co., Milwaukee. Alcohol 13.5 per ceat., oil lemou traces. Aniline color.
Sept.	5, 1898.	"Monarch Brand Lemon," Reid. Murdock Co., Chicago. Alcohol 94.66 per cent, polar, reading 25.7, equivalent to 7.5 per cent. oil lemon.
₹ept.	5, 1898.	Precipitation yielded 7.3 per cent. oil lemon, refracton 65-69. "Bon Ton Favorite Extract Lemon," sold by Wm. Grossman, Milwaukee. Bought of E. H. Welsh, Waukesha. Labeled "Bon Ton Chemical Works, Chicago." Alcohol 22.85 per cent., polar. reading 0.1, oil lemon trace. Color di-nitro-cresol.
Sept.	14, 1898.	Lemon Extract, bought of A. Lichtenberger, Oshkosh. Alcohol 22.8 per cent., polar, reading 0.0, oil lemon none.
Sept.	14, 1898.	"Fisher's Extract Lemon," manuf. by A. J. Hilbert & Co., Milwaukee. Alcohol 89 9 per cent., polar reading 20.8, equivalent to 6.1 oil lemon.
Sept.	15, 1898.	reading 21.0, equivalent to 6.2 per cent oil lemon. Precipitation
Sept.	15, 1898.	gave 6.5 per cent. oil, refraction 64-68. Lemon Extract, manuf. by Ed. Dewey, Milwaukee. Alcohol 86.1, polar. reading 15.3, equivalent to 4.5 per cent. oil lemon. Precipitation showed 4.3 per cent. oil, refraction 64-68.
Sept.	15, 1898.	"Dieeter's Double Strength Lemon," bought of A. Watterson, Weyauwega. Alcohol 55 4 per cent., polar. reading 1.8, equivalent to 0.5 per cent oil lemon. Color di-nitro-cresol.
Sept.	15, 1898.	Lemon Extract bought of H. F. Wilcox, druggist, Weyauwega. Alcohol 92 per cent., polar, reading 15.9, equivalent to 4.9 per cent. oil lemon.
Sept.	30, 1898.	Precipitation gave 5 per cent. oil, refraction 64-68 "Souder's New Cream of Fruit." Polar, reading 18., equivalent to 5.3 per cent. oil lemon. Precipitation gave 5.3 per cent. oil, refraction 64-67. Uncolored.
Sept.	30, 1898.	

VANILLA EXTRACTS.

The examination of vanilla extracts has until now proved a perplexing problem. The lower grades of vanilla extracts on the market were largely extracts of tonka with varying amounts of vanillin or of vanilla extract. Almost all of these were colored either with caramel or aniline dyes. The latter are coming into great favor. The separation of vanillin and cumarin and their quantitative determination has offered considerable difficulty to the analyst. problem has probably been solved by the work of Messrs. Hess & Prescott, as published in the journal of the Λ . C. S.

of vanillin is unsuited for the work of the ordinary food analyst, who is generally compelled to work upon an exceedingly small amount of the material. Where caramel is present in large quantity, it can generally be precipitated by the addition of paraldehyde and sufficient alcohol to effect solution. The caramel will form a sticky mass in the bottom of the tube upon standing over night. The coloring matter of vanilla is completely precipitated by liquor of sub-acetate of lead. While this re-agent precipitates

The sodium-bi-sulphite method for the separation

matter from solution.

CREAM OF TARTAR.

the bitter principal, it does not remove the coloring

Perhaps no substance has been more subject to adulteration and sophistication than cream of tartar. As a rule the cream of tartar purchased in the drug stores has been at least commercially pure, the only impurities being small amounts of tartrate of lime and sulphate of lime. Examination of the samples of cream of tartar purchased from the grocers show that true cream of tartar was seldom met with, but a substance sold as phosphatic cream of tartar was largely substituted for it.

Cream tartar substitutes.

This substance consisted of calcium acid phosphate and starch and of calcium acid phosphate, alum and In a few instances cream tartar in the commercially pure state was furnished.

The following are the results of examinations of cream tartar samples purchased: Digitized by Google

Caramel.

CREAM OF TARTAR ANALYSES.

Date.	Samples sent by	Post Office.	Remarks.
1897.	•		
Nov. 3	Joannes Bros. (Sold by John Robinson)	Green Van	Noonly pure Colsings to
Nov. 3	Joannes Bros. (Sold by Apgar &		Nearly pure. Calcium tar- trate small amount.
Aug. 4	Co., Chicago)	Green Bay	Pure.
1898.	Flint, Milwaukee)	Racine	Pure.
	Wm. Kuehe. (Sold by C. E. An-		
	drews & Co.)	Milwaukee	Composed of flour and cal- cium acid phosphate.
April 6	Paul Arndt. (Sold by Atlantic		Cream of tartar absent.
_	Tea Co., Milwaukee)	Milwaukee	
April 18	Bought of S. P. Schadel	Milwaukee	phate. Calcium acid phosphate, starch. Cream of tartar,
April 18	Latsch & Sons	Winone Minn	none
	'	i i	acid phosphate and flour.
June 3	Guenther Carblerg. (Bought by W. W. Chadwick)	Neenah	Duna
June 3	C. Paul & Co. (Bought by W.W.		
June 3	Chadwick) H. Uvaas & Co. (Bought by W.	Neenah	Pure.
	W. Chadwick)	Neenah	Calcium acid phosphate, starch and cream of tartar.
June 3	B. B. Bailey. (Bought by W. W.		
	Chadwick)	Appleton	Pure.

BAKING POWDER.

Baking powder branding.

The present law requires the branding of all baking powders containing alum in any form, with the words "This Baking Powder Contains Alum." The need of this law was very urgent, as at the time of its passage many brands of baking powder were on the market, varying in quality from the cheapest powders, composed of only bi-carbonate of soda and alum, together with filler (starch), the latter often amounting to as high as 50 per cent., to baking powders composed of better grades of soda alum, especially prepared, and mixed with acid phosphate of lime, bicarbonate of soda and filler in necessary amount. All of these powders were placed on the market under claims of purity; many of them were apparently guaranteed to contain pure cream of tartar, and to be free from lime, alum, ammonia, etc. The cheaper and more inferior the powder the more extravagant were the claims made for it in most instances. The following quotation will show the evident intent to deceive on the part of these unscrupulous manufacturers:

"Delicatesse-Warranted Cream Tartar Baking

Powder Co., New York, U. S. A." (The foregoing being stamped upon the tin cover, without any punctuation whatever.) Mnfg. by "The Cream Tartar Baking Powder Co., New York, U. S. A." In two other places on this can apparent guarantees are given for the purity of this baking powder, and the formula is given for the manufacture of a pure cream tartar baking powder, as follows: "How to make a STRICTLY PURE CREAM TARTAR BAKING POWDER," (leaving the purchaser to presume that the formula referred to the contents of this package).

The facts in this instance were that no such company existed, and that the powder was said to be made in Ohio. The powder was one of the cheapest forms of alum baking powder, costing the manufacturer not

over four cents per pound.

Claims of manufacturers

The manufacturers of alum baking powders base their claims as to the injustice of this law upon statements that the alum used in these powders is precipitated and rendered insoluble into the bread by the heat used in baking, and that injury from its use has not been proven. They, therefore, claim that its use in baking powder should not be restricted. The weakness of this stand is readily seen when it is recalled that in all food legislation two objects are to be attained: First, the prohibition of the sale of injurious food products; and, second, the prevention of fraud.

Alum powders suspicioned.

All baking powders are chemical compounds used for the leavening of foods. It is then but fair that those containing substances viewed with suspicion by the public should be so marked as to inform the purchasers of their true composition and character. The benefit from legislation of this kind can best be shown by citation of one of the points involved in a case prosecuted by this department.

Instance of deception practiced.

A tea merchant of Milwaukee, having several stores, sold, in conjunction with tea and coffee, two brands of baking powder. The one marked "Best" was sold at 50 cents a pound, and several prize tickets given with each of such sales. Under a different label a baking powder was retailed at 20 cents, with the price plainly printed upon the label. Upon examination, both of the powders were found to contain alum and to be exactly alike in composition. The facts

here demonstrated were that where parties wished to obtain a high-grade baking powder and were willing to pay the price necessary for the purchase of one manufactured from the most expensive materials, they actually did obtain in this instance the same baking powder as was retailed at 20 cents per pound, and which cost the manufacturer not to exceed seven cents per pound, and the only mitigating circumstances were that it was in that case furnished with several tickets for the prize.

Wholesome-

As to the wholesomeness of alum in baking powders, this is entirely a secondary matter, and one which is equally hard to prove or disprove. Certain experiments made by Sutton and Patrick have inclined them to the belief that the alum was largely, if not wholly, rendered insoluble in bread made by the use of alum in baking powder. On the other hand, an exhaustive series of experiments performed by W. D. Bigelow and C. C. Hamilton (Journal A. C. S., Vol. 16, page 587) seemed to conclusively show that hydrate of alumina itself has the same hindering effect upon digestion as does alum through its solution in the acids of the gastric juices. (No gastric digestion can take place except in the presence of an excess of acid) and finally that aluminum phosphate seemed to have greater power in retarding digestion, both gastric and pancreatic, than either alum or hydrate of alumina. Under these circumstances, it is no more than just that every consumer should have the right of proof that a baking powder is manufactured free from such ingredients as he views with suspicion.

False list.

Advantage was taken at the time of the passage of this law by certain unscrupulous advertisers of cream of tartar baking powders, in issuing pamphlets purporting to come from this department and containing lists of baking powders said to contain alum. In that list were included several cream of tartar baking powders of undoubted purity, and which ranked as high, if not higher, than those of which the extravagant claims were made by the advertisers.

BAKING POWDERS.

1897.

March 20. "Delicatesse" Baking powder. The label of this powder apparently guarantees the contents to be a pure cream of tartar baking powder. It contains no cream of tartar or acid phosphate, its acid ingredient being soda alum.

1897.

- June 3. Sent by Alex. Findlay Co., Madison. Supposed to be cream of tartar. Composed of calcium acid phosphate, soda alum and filler.
- Sept. 29. Sent by A Winegard & Co., Green Bay. Sold in bulk. Composed of soda alum, acid phosphate and filler.
- Aug. 18. Sent by Vale & Brictson, Deerfield. "Pure Cream Baking Powder," Boston Baking Powder Co., Fairport, N. Y. Consists of soda alum, calcium acid phosphate and filler.

1898

- May 26. "New York Tea Co.'s Best Baking Powder." Bought by N. J. Field. Price fifty cents. Contains soda alum, calcium acid phosphate, bi-carbonate of soda and filler. Cream of tartar absent.
- May 26. Baking Powder bought by N. J. Field of New York Tea Co., price paid twenty cents. Composition was apparently identical with the best, sold at fifty cents.
- June 28. Bought of Chas. Livingston, Kenosha. Seven Brothers' Baking Powder. H. H. & Co. Composed of soda alum, small_amount of calcium acid phosphate, bi-carbonate of soda and filler. Not labeled as containing alum.
- June 28. Bought of Chas. Livingston, Kenosha. "Hotel Baking Powder." Randolph Manfg. Co., Chicago. Composed of soda alum, bi-carbonate of soda and filler. Not labeled as containing alum.
- July 15. Chicago Yeast Powder. Made by Chapman, Smith & Co., Chicago. Contains soda alum. Mr. Rose, agent, told Mr. Soren Nelson, grocer, of Racine, that this powder did not need an alum label. Labels were afterwards furnished by the company, which did not conform to the law.
- July 21. Sold by Kaiser Bros., Madison. Imperial Baking Powder. Composed of soda alum, calcium acid phosphate, bi-carbonate of soda and filler. Not labeled as containing alum.

FLOUR.

Compounding.

Since the passage of the U.S. law governing the compounding of flour additions of corn flour to wheat products without proper labeling have practically ceased. Samples of suspected wheat flour sent for examination have invariably been found to contain excessive amounts of low-grade flour approaching middlings.

Buckwheat.

Buckwheat flour has been much adulterated in the past, but as the present price of wheat flour leaves but little incentive for its adulteration, it has greatly diminished. Several samples have been examined and found to contain wheat flour and middlings.

Photographic records made.

It has been found expedient to make photo-micrographs where prosecutions are brought for evidence of this form of adulteration. It is thus possible to offer in evidence and bring before the judge and jury photographs of the magnified buckwheat flour, the pure adulterant, and the mixture in question, each magnified the same number of times, thus enabling the jury to see for themselves the extent of the adulteration and the certainty of the presence of the adulterant.

FLOURS.

1898.

WHEAT FLOUR.

March 3. Brannan & Kirwan. Gratiot. Examined for corn or corn starch. None present. Pure.

BUCKWHEAT FLOUR.

1898

March 10 Sent by B. M. Minch, Madison. Pure.

Aug. 5. Sent by Bach, Kiewig & Poser Co., Kewaunee. Contains at least 25 per cent. wheat flour.

COFFEE.

The low price of coffee during the last few years has driven out of this market the fraudulent beans formerly manufactured, and during the last three years none of these have been met with.

Unground coffee is generally cheapened by the admixture of screenings and shrunken beans. The latter are black and bitter, and removed by hand picking from the better grades of coffee generally shipped

here from the European markets.

Glazing of.

These are roasted, colored and glazed so as to be hardly noticeable when mixed with normal beans in amounts even as high as 50 per cent. The glazing of coffee has been excused on the ground that the glazing helped to retain its aroma and strength. It, however, proves to be a cloak for the sale of blighted, extracted and inferior material. All glazing and coloring should be absolutely prohibited.

MUSTARD.

Much of the dry mustard on the market at the beginning of 1897 was found to be reduced with wheat starch in the form of flour or middlings. The amount of adulterant present varied from 20 to 60 per cent.

Claims were made by the manufacturers and wholesalers that the addition of an adulterant was necessary, both for the proper milling of the mustard and for the purpose of making it palatable and suitable for food. Assertions were even made that no pure mustard in the dry form was for sale at that time. The better class of manufacturers, however, insisted that a large part of their sales were of the pure article and that they would be glad to see the sale of reduced dry mustard suppressed. No samples have been found so far which have been adulterated with gypsum of other mineral matter. The only forms of adulteration so far discovered have been the addition of starch and coloring matter. The coloring matter has generally proven to be curcuma. But two cases of aniline coloring have been met with.

Photomicography used. The examination of mustard and of all ground spices has been largely microscopical. Photo-micography will prove of much value in showing the extent of adulteration in mustard and spices for evidence in jury trials.

Preparation of samples.

In the microscopic examination of spices adulterated with coconnut shells or other dense substances, the best results are obtained by the examination of the "crude fiber" or of the finely powdered material which has been bleached in hypochlorite of soda or by means of chlorine while the substance is suspended in weak solution of an alkaline carbonate.

The following samples of mustard and spices have been examined:

MUSTARD.

1897.

- Aug. 4. Ground mustard sent by G. A. Rickenson, Racine. Sold by J. G. Flint, Milwaukee. Free from starch and coloring. Pure.
 1898.
- July 20. Bought of D. C. Adams, Milwaukee. Durkee's mustard. Manufactured by E. R. Durkee & Co., N. Y. Contains no starch or coloring matter & Pure.
- Sept. 5. Dieter's mustard. Manufactured by the J. P. Dieter Co. Contains no starch or coloring. Pure.
- Sept. 5. Home Brand Mustard. Manufactured by Griggs, Cooper & Co., Minneapolise Pure.
- Sept. 20. Ground mustard (bulk). Bought of B. Ehrlich, Fond du Lac. Adulterated by wheat, starch and colored with curcuma.
- Sept. 20. Ground mustard (bulk). Bought of Basmussen & Miller, Oshkosh. Pure.
- Sept. 20. Ground mustard (bulk). Bought of C. F. Voight, Oshkosh. Free from starch and coloring, but contains a large amount of mustard hulls.
- Sept. 20. Ground mustard (bulk). Bought of K. H. Seltzer, Waukesha. Commercially pure.

- Sept. 20. Ground mustard (bulk). Bought of R. A. Watterson, Weyauwega. Contained much wheat middlings; highly colored.
- Sept. 20. Ground mustard (bulk). Bought of S. Frank. Colored with curcuma, otherwise pure.
- Sept. 29. Bulk mustard sent by C. C. Sniteman, Neillsville. Sold by Smith, Thorndyke & Co., Milwaukee, and guaranteed pure. This sample is suspected of containing mineral adulteration. Ash 5.60 per cent. Microscope showed no crystals, starch or coloring. Pure.

SPICES.

1897.

Aug. 4. Powdered ginger, sent by G. A. Rickeman, Racine. Sold by J G. Flint & Co, Milwaukee. Pure.

1898.

July 15. Coffee sent by I. N. Coffmann, Marion. Sold by Frank VanDyke, Marion. Contains some screenings. Otherwise pure.

1897

March 18. Coffee sent by E. P. Arpin, Grand Rapids. Rio—whole. Genuine, but contained portion of undeveloped and shrunken beans.

DRUGS.

1893.

March 10. Sent by E. B. Heimstreet, Janesville. "Favorite Hartshorn Ammonia,"
Bengal Mills, Chicago. Specific gravity .981, equal to 4.58 per cent. ammonia. Alkalinity equal to 4.50 per cent. ammonia. Salts of soda and potash absent.

1897.

Aug. 18. Sent by Vale & Brictson, Deerfield. Saleratus in bulk. Consists of bi-car-bonate of soda, free from starch and commercially pure.

1898.

Meat preservatives.

- Aug. 20. Sont by E. B. Heimstreet, Janesville, Wis. "Pardoe's World-Renowned, Hand-weighed, Absolutely Pure Seidlitz Powders," Pardoe, Pindar & Co., New York.
 - Careful re-weighing and averaging of six each of both blue and white papers, showed the blue paper to contain but 74 per cent. and the white papers but 75 per cent. of the required amount of salts.
- March 3. Sent by E. B. Heimstreet. "Standard Aqua Ammonia," Kenwood Manufacturing Co. Contained 2.30 per cent. ammonia. Contained no soda or potash.
- April 6. C. Pfeifer, Plymouth. Tannic acid. Gave a heavy precipitate of resins and a slight precipitate of dextrin. Was quite impure but not intentionally adulterated.

PRESERVATIVES.

The use of preservatives in all kinds of food products is becoming more and more prevalent. Several brands are on the market for use in chopped meats, oysters and salted fish. Substances used in meats generally consist of sodium sulphite, where it is intended to be used in chopped meats, or of borax and boracic acid where intended for oysters or for use in brines or pickled meats.

Sausage color. Sausage preservatives also contain aniline coloring

matter. One sample examined was found to be composed of salt niter, borax and boracic acid and magenta coloring.

Fluorids used.

Ammonium acid fluoride and the fluo silicates are also sold as meat preservatives. Boracic acid and borax are advocated for use in lard and dairy prod-

Fruit preservatives.

Compounds containing sodium salicylate and salicylic acid are sold under trade mark names, as canning processes. One of the most prominent manufacturers of these goods has been located in a booth at the state fair for several years, and has broadly advertised his wares, using a circular stating: "Remember this is not a salicylic acid, fumigating or antifermentive process." Notwithstanding this, the material furnished consisted of a mixture of sodium salicylate, salicylic acid and phosphate of sodium. The party in question promptly vacated the booth upon being threatened with arrest by this department. It has been stated that many so-called rights to use this process have been sold by him and his agents to fruit growers in the state.

PRESERVATIVES.

1898.

- 3. "Cream Albuminoid." Manufactured by Preservaline Mfg. Co., Milwaukee. June Bought by N. J. Field of the Chicago Creamery Package Co. Consisted of gelatin, boracic acid and borax.
- 3. "XXX Meat Preservative." Manufactured by Preservaline Mfg. Co., New June York. Consisted of sodium sulphite.
- 3. "Special M. Preservaline." Manufactured by Preservaline Mfg Co. Sold June by Chicago Creamery Package Co. Consisted of formic aldehyde.

 3. "New Method Meat Preserver." Sold by Dreyfoos & Sandels, Milwaukee.
- June Consisted of sodium sulphite.

MISCELLANEOUS.

1898.

- Dec. 23. Canned corn ("Martha Washington" brand). Contained salicylic acid.
- Canned tomatoes ("Monarch" brand). No coloring or preservative found.
- Dec. 23. "Non-intoxicating" liquors, bought by J. E. L. Smith, North Freedom. Sold by Barrett & Barrett, Chicago. Contained 3.18 per cent., by weight,

WATERS.

A large number of waters have been submitted for examination by the State Board of Health and local health officers. The samples have been examined and reported upon as promptly as the work of this department would permit. The methods of examination are those previously used by this department, as described at length in Leffman's Manual of Sanitary Water Analyses.

Application for lists.

The enforcement of the new food law has involved the department in tests so numerous and varying that it has been practically impossible to do work for private parties. But in all cases of suspected contamination of public or private water supplies, if samples are taken with proper precautions and are submitted by the local authorities, examinations will be made as promptly and carefully as possible. To facilitate this work suitable blanks have been prepared by Dr. U. O. B. Wingate, secretary of the State Board of Health, and application should be made to him or to the local health officers where sanitary examinations of water are desired.

State supervision of water supplies. The rapid settlement of the state makes a systematic examination of water supplies of villages and towns a growing necessity. A special appropriation has been made for that work in Massachusetts and Ohio and the location of all public water supplies and sewerage systems has been put in charge of the State Board of Health, with exceedingly gratifying results. The time will soon come when similar measures will need to be taken in this state.

WATER ANALYSES.

November 25, 1896.—Sent by Dr. H. D. Hardacker, Hortonville.	
Parts 1	per. 100,000.
Solid residue	47.00
Mineral residue	37.50
Volatile residue	9.50
Chlorine	.250
Saline ammonia	.002
Albuminoid ammonia	.009
Nitrites	0000
Nitrates	.010
Considered pure.	

December 4, 1896.—Sent by Dr. W. E. Hallock, Juneau.

	Parts	per 100,000.
Solid residue	• • •	65.60
Mineral residue	• • •	41.20
Volatile residue		24.40
Chlorine		6.25
N. as nitrates		.030
N. as nitrites	•••	.0000
Ammonia, saline		.024
Ammonia, albuminoid	• • •	.004

December 4, 1896.—Sent by The Geo. Reeder Brewing Co., Wausau, Wis.

	per 100,000.
Total residue	 39.50
Mineral residue	 20.10
Volatile residue	 9.40
Chlorine	 6.35
N. as nitrates	 .770
N. as nitrites	 .0002
Ammonia, saline	 .024
Ammonia, albuminoid	 .006
This water appears to be quite badly contaminated.	

December 17, 1896.—Sent by C. Larson, Lake Geneva.

Water No. 1.

	Parts	per 100,000.
Solid residue		22.50
Mineral residue		13.30
Volatile residue		9.20
Chlorine		.575
Nitrogen as nitrites	• • •	.0003
Nitrogen as nitrates	• • •	.030
Saline ammonia		.028
Albuminoid ammonia		.010
Water of doubtful purity.		

Water No. 2.

Solid residue / Mineral residue	80.10
Volatile residue	10.10
Chlorine	
Nitrogen as nitrites	
Nitrogen as nitrates	
Saline ammonia	
Albuminoid ammonia	.003

December 23, 1896.—Sent by Dr. O. E. Bailey, Waterloo.

Water No. 1.

water No. 1.	
Solid residue Mineral residue Volatile residue (Nitrous fumes were given off upon ignition.) Chlorine Nitrogen as nitrates. very Nitrogen as nitrites.	ts per 100,000. 262.40 151.00 111.4 46.450 large amount. trace only.
Ammonia, saline Ammonia, albuminoid Mineral impurities very large amount, organic comparatively sn	.004 .016
Water No. 2.	
Solid residue Mineral residue Volatile residue Chlorine Nitrogen as nitrates Nitrogen as nitrites Ammonia, saline Ammonia, albuminoid This water is similar to the other, only polluted to a much less	.0002 .001 .003
January 22, 1897.—Sent by Dr. F. L. Hinman, Rhinelander.	
	ts per 100,000.
Chlorine	.175
Nitrates	.012
Nitrites Free ammonia	.0000
Albuminoid ammonia Color	.006
•	
February 12, 1897.—Water sample sent by Dr. Hartwig, Waterto	
	ts per 100,000.
Chlorine	1.950
Saline ammonia	.001
Albuminoid ammonia	.006
N. as nitrates	.0000 .008

February 19, 1897.—Sent by F. O. Hunt, Fall River.

Water No. 1, Marked "Hobart's."

	Parts	per 100,000.
Solid residue		34.40
Mineral residue		20.90
Volatile residue		3.50
Chlorine		1.150
Nitrogen as nitrites		.0000
Nitrogen as nitrates		.350
Ammonia, saline		trace only.
Ammonia, albuminoid		.002
ontains little organic matter, but shows soil leaching.		

Water No. 2, "Councilman's."

· ·	Parts per 100,000.
Solid residue	116.10
Mineral residue	56.10
Volatile residue	60.0
Chlorine	175
Nitrogen as nitrites	0001
Nitrogen as nitrates	1.585
Ammonia, saline	
Ammonia, albuminoid	
February 24, 1897.—Sent by Dr. Chas. McDonald, Kewaune	e.
	Parts per 100,000.
Solid residue	28.5
Mineral residue	19.8
Volatile residue	8.7
Chlorine	1.500
Nitrogen as nitrites	0002 -
Nitrogen at nitrates	020
Ammonia, saline	068 .
Ammonia, albuminoid	022
Condemned.	
•	
March 19, 1897.—Sent by W. E. Ground, West Superior.	
	Parts per 100,000.
Solid residue	6.600
Mineral residue	3.400
Volatile residue	3.200
Chlorine	140
Saline ammonia	005
Albuminoid ammonia	011
Nitrogen as nitrates	025
Nitrogen as nitrites	0001
•	
•	

April 30, 1897.—Sent by D. G. Morris, president village board, Sharon, Wis. Parts per 100,000.

s per 100,000.
31.90
24.50
7.40
.300
.0004
. 035
.012
.004

May 6, 1897.-Sent by F. E. Waite, Oshkosh.

	Parts per 100,000	0.
Solid residue	29.00	
Mineral residue	21.90	
Chlorine	250	
Nitrogen as nitrates	005	
Nitrogen as nitrites	0000	
Ammonia, saline	012	
Ammonia, albuminoid	002	
Unusually pure,	Digitized by Goog	χle
		J

May 20, 1897.—Sent by E. M. Wright, Prairie du Chien.

Well Water.

	Parts	per 100,000.
Total residue		29.90
Mineral residue		13.70
Volatile residue	• • •	16.20
Chlorine		1.575
Free ammonia		.006
Albuminoid ammonia		.005
N. as nitrites	• • •	.0000
N. as nitrates		1.700
contained much "past pollution," and is of doubtful purity.		

May 20, 1897.—Sent by Hon. E. I. Kidd, Prairie du Chien.

Parts per 100,000.

Total residue	37.00
Mineral residue	24.80
Volatile residue	12.20
Chlorine	1.050
Ammonia, saline	.001
Ammonia, albuminoid	.003
Nitrogen as nitrites	.0000
Nitrogen as nitrates	. 450
"Past pollution," doubtful purity.	

May 28, 1897.—Sent by W. W. Chadwick, Monroe City Well.

•	Parts per 100,000.
Total residue	
Mineral residue	27.30
Volatile residue	11.80
Chlorine	1.125
Nitrogen as nitrites	
Nitrogen as nitrates	
· Ammonia, saline	
Ammonia, albuminoid	

May 28, 1897.—Sent by Hon. E. I. Kidd, Prairie du Chien Well.

•	Parts	per 100,000.
Total residue		87.60
Mineral residue		18.60
Volatile residue		19.00
Chlorine		1.700
Nitrogen as nitrites		.0001
Nitrogen as nitrates		1.571
Saline ammonia		.000
Albuminoid ammonia		.004
bast pollution, dangerous.		

May 25, 1897.—Sent by Dr. J. C. Reynolds, Lake Geneva.

Water No. 1.

		per 100,000.
Total residue		23.90
Mineral residue	• • •	11.10
Volatile residue		12.80
Chlorine	• • •	.150
Nitrogen as nitrites		.0000
Nitrogen as nitrates		.005
Saline ammonia		.014
Albuminoid ammonia		.048
Free from sewage; contains vegetable impurities.		

Water No. 2.

	ts per 100,000.
Total residue	23.00
Mineral residue	11.30
Volatile residue	11.70
Chlorine	.175
Nitrogen as nitrites	.0000
Nitrogen as nitrates	traces only.
Saline ammonia	.008
Albuminoid ammonia	.034

Water No. 3.

Par	Parts per 100,000.	
Total residue	1.60	
Mineral residue (about 1-20 grain to gallon)	.10	
Volatile residue	1.50	
Chlorine	traces only.	
Nitrogen as nitrites	.0000	
Nitrogen as nitratesLess than	.005	
Saline ammonia	.001	
Albuminoid ammonia	.014	
(Seems to be ice water.)		

June 9, 1897.—Sent by Dr. B. F. Dobson, Berlin. Sample of artesian water from the city supply.

Pa	rts per 100,000.
Total residue	38.60
Mineral residue	29.30
Volatile residue	9.30
Chlorine	.700
Sulphuric anhydride	3.021
Equivalent calcium sulphate	5.136
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.006
Ammonia, saline	.001
Ammonia, albuminoid	traces only.
Exceedingly pure.	

June 16, 1897.—Sent by A. M. Kersten, M. D., De Pere.

Ice	Sample	"A"	from	above	Dam.
-----	--------	-----	------	-------	------

Pa	Parts per 100,000.	
Chlorine	trace only.	
Nitrites	.0000	
Nitrates	.0000	
Ammonia, saline	.006	
Ammonia, albuminoid	.009	
Reasonably pure.		

Ice Sample "B" from below the Dam.

Parts	per 100,000.
Chlorineless than	.050
Nitrites	.0000
Nitrates	.0000
Ammonia, saline	.008
Ammonia, albuminoid	.024
Not so pure as "A."	

June 25, 1897.—Sent by A. F. Bloki, Health Officer, Sheboygan.

Part	s per 100,000.
Total residue	39.30
Mineral residue	31.40
Volatile residue	7.90
Chlorine(quite high)	.850
Nitrates	
Nitrites	
Ammonia, saline	
Ammonia, a.buminoid	.082
Condemned.	

July 2, 1897.—Sent by Dr. J. C. Reynolds, Lake Geneva.

Water No. 3.

	per 100,000.
Totai residue	 21.20
Mineral residue	 11.40
Volatile residue	9.80
Chlorine	 . 225
Nitrogen as nitrates	 .007
Nitrogen as nitrites	 .0000
Ammonia, saline	 none.
Ammonia, albuminoid	 .022
Vegetable impurities.	

July 15, 1897.—Water sample sent from Children's Fresh Air Home, Neshota. Parts per 100,000.

Total residue		36.10
Mineral residue		27.20
Volatile residue		8.90
Chlorine		.300
Nitrogen as nitrites		.0002
Nitrogen as nitrates		.010
Ammonia, saline		.038
Ammonia, albuminoid	,	.016
Impura from vagatable metter		

Impure from vegetable matter.

July 16, 1897.—Sent by E. I. Kidd, Prairie du Chien.

Sample No. 1, from Well of L. Case.

P	arts per 100,000.
Total residue	. 41.20
Mineral residue	. 26.60
Volatile residue	. 14.60
Chlorine	. 1.350
Nitrogen as nitrites	
Nitrogen as nitrates	. 1.250
Ammonia, albuminoid	004
Ammonia, saline	002
Suspicious.	

Sample No. 2.

Par	ts per 100,000.
Total residue	39.40
Mineral residue	22.20
Volatile residue	17.20
Chlorine	.600
Nitrogen as nitrites	traces.
Nitrogen as nitrates	.220
Ammonia, saline	.002
Ammonia, albuminoid	.008
Suspicious.	

July 22, 1897.—Water from well at school district No. 7, Beaver Dam. Sent by Dr. Geo. E. Talbert.

Par	ts per 100,000.
Total residue	60.60
Mineral residue	51.10
Volatile residue	9.50
Chlorine	.175
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.015
Ammonia, saline	.002
Ammonia, albuminold	.014

This water contains no sewage pollution or contamination of a dangerous character. It contains some organic matter, however, probably of vegetable origin.

August 20, 1897.—Sent by L. T. Pare, Health Officer, Chippewa Falls.- Taken from taps of city supply, August 11, 3 p. m.

Water No. 1.

	Parts per	100,000.
Total residue	10.	90
Mineral residue	6.	80
Volatile residue	4.	10
Chlorine		160
Nitrogen as nitrites		0000
Nitrogen as nitrates		110
Ammonia, saline		000
Ammonia, albuminoid		002
0 consumed in 10 minutes		015
		(

Water No. 2.	
	ts per 100,000.
Total residue	10.80
Mineral residue	6.90
Volatile resique	3.90
Chlorine	.160
Nitrogen as nitrites	.0004
Nitrogen as nitrates	.120
Ammonia, saline	.002
Ammonia, albuminoid	.003
0 consumed in ten minutes	.020
These waters are of exceptional purity.	
September 17, 1897.—Sent by A. Cowell, Hartland.	
	s per 100,000.
Chlorine	1.600
Ammonia, saline	.004
Ammonia, albuminoid	
Nitrogen as nitrites	.0001
Nitrates are unusually heavy.	.0001
Condemned.	
0.4.1.7.1007. 0.44.1.7.4.7.7.	
October 7, 1897.—Sent by Dr. A. B. Rosenberry, Arbor Vitae.	100 000
	ts per 100,000.
Total residue	9.10
Mineral residue	5.80
Volatile residue	3.30
Chlorine	.450
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.080
Ammonia, saline	.000
Ammonia, albuminoid	.003
Pure soft water.	
October 21, 1897.—Sent by Dr. B. F. Dodson, Berlin. Taken	from well of
H. S. Sackett.	
Par	ts per 100,000.
Total solids	36.10
Mineral residue	19.70
Volatile residue	16.40
Chlorine	2.350
Nitrogen as nitrites	.0001
Nitrogen as nitrates	.055
Ammonia, saline	.002
Ammonia, albuminoid	.008
November 3, 1897.—Sent by Dr. Gillan, Oshkosh.	
	s per 100,000.
Total residue	31.30
Mineral residue	23.80
Volatile residue	7.50
Chlorine	.425
Ammonia, saline	.008
Ammonia, albuminoid	.003
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.008

Considered pure.



·	
November 5, 1897.—Sent by Dr. Chas. O. Cron, Health Officer, C	Camp Douglas.
Part	s per 100,000.
Total residue	34.80
Mineral residue	20.60
Volatile residue	14.20
Chlorine	2.250
Nitrogen as nitrites	.0030
	.550
Nitrogen as nitrates	.088
Ammonia, saline	
Ammonia, albuminoid	.050
Badly contaminated.	
•	
November 18, 1897.—Sent by Health Officer, Superior. (Sent in	corked bottle)
	s per 100,000.
Total residue	6.40
	4.00
Mineral residue	
Voiatile residue	2.40
Chlorine	.160
Nitrogen as nitrites	.0000
Nitrogen as nitrates(doubt)	.008
Ammonia, saline	.001
Ammonia, albuminoid	.007
•	
Navamban 20, 1907 Elman alter mater. Sont by Dr. C. S. Smith	Tilmor.
November 30, 1897.—Elroy city water. Sent by Dr. C. S. Smith	
	s per 100,000.
Total residue	20.70
Mineral residue	14.50
Voiatile residue	6.20
Chlorine	.850
Ammonia, saline	.000
Ammonia, albuminoid	.003
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.040
Pure.	
November 30, 1897.—Sent by W. C. Schmitz, St. Nazianz, Wis.	
Water No. 1, from Well.	
	ts per 100,000.
Total residue	63.30
Mineral residue	35.40
Volatile residue	27.90
Chlorine	4.650
Saline ammonia	none.
Albuminoid ammonia	.008
Nitrogen as nitrites	none.
Nitrogen as nitrates	.300
Deemed unsafe.	. 800
Deemed dusate.	
December 1, 1897Sent by H. W. Morganroth, M. D., Kewasku	m.
	ts per 100,000.
Total residue	36.90
Mineral residue	28.70
Volatile residue	8.20
Chlorine	1.050
Ammonia, saline	.000
Ammonia, albuminoid	.004
Nitrogen as nitrites	.0000
with an all the same and the sa	.0000

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December 1st, 1807.—C. E. Thayer, M. D., Markesan.	(a t)
Water sample eight ounces only.	
	ts per 100,000.
Chlorine	2.50 none.
Nitrates	.035
Passed as probably pure.	.000
I appea an propant, parei	
January 12, 1898.—Sent by Dr. W. H. Budge, Marshfield.	
	ts per 100,000.
Total residue	40.30
Mineral residue	26.00
Volatile residue	13.70
Chlorine	$\begin{array}{c} 9.40 \\ .012 \end{array}$
Saline ammonia	.014
Nitrates	
Nitrites	trace only.
Impure.	
January 13, 1898.—Sent by R. A. Girardin, Health Officer, Ocon	to Falls, school
well No. 3.	,
	ts per 100,000.
Total residue	25.80
Mineral residue	17.70
Volatile residue	8.10
Chlorine	.200
Saline ammonia	.000
Albuminoid ammonia	.004
Nitrates	traces.
Nitrites	none.
2 4.01	
Cout he Was Timbs from well in shoons fastons at Treatment T	anuaum 19
Sent by Wm. Hipke from well in cheese factory at Hustisford, J	ts per 100,000.
Total residue	86.00
Mineral residue	55.50
Volatile residue	30.50
Chlorine	21.400
Saline ammonia	.008
Albuminoid ammonia	.006
Nitratesless than	.010
Nitrites	none.
January 19, 1898.—Sent by Dr. A. B. Rosenberry, Health Office	er. from Arbor
Vitae, Vilas county.	
	ts per 100,000.
Total residue	34.20
Mineral residue	20.30
Volatile residue	13.90
Chlorine	3.500
Saline ammonia	.147 .114
Albuminoid ammonia	trace.
Nitrogen at intrites	
Condemned.	ac umounu
Las Digitizad	by (LOOGLE

January 20, 1898.—Well water sent by D. F. Bentley, M. D., Health Officer, Portage.

Par	ts per 100,000.
Total residue	72.90
Mineral residue	54.30
Volatile residue	18.60
Chlorine	6.400
Saline ammonia	.006
Albuminoid ammonia	.042
Nitrogen as nitratesvery	
Nitrogen as nitrites	.0010
The residue blackens considerably on ignition.	
Condemned.	

January 20, 1808.—Water from tank of city water supply of Waupun. Sent by Dr. G. B. Durand.

Parts	per 100,000.
Solid residue	36.80
Mineral residue	27.80
Volatile residue	9.00
Chlorine	0.625
Ammonia saline	0.024
Ammonia albuminoid	0.002
Nitrogen as nitrites	0.0001
Nitrogen as nitrates	0.055

January 22, 1898.—Pumping station, Lake Geneva.

Water No. 1.

Parts	per 100,000
Chlorine	.575
Free ammonia (saline)	.026
Albuminoid ammonia	.008
Nitrogen as nitrites	.0001
Nitrogen as nitrates	. 055

Water No. 2.

Parts	per 100,000.
Chlorine	. 225
Free ammonia (saline)	.016
Albuminoid ammonia	.018
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.005

May 18, 1898.—Sent by F. D. Bentley, M. D., Portage.

	Part	ts per 100,000.
Total residue		149.50
Mineral residue		119.10
Volatile residue		30.40
Chlorine		14.150
Saline ammonia		.013
Albuminoid ammonia		.044
Nitrogen as nitrites		.0010
Nitrogen as nitrates	very	large amount.
ondemned.		

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July 29, 1898.—Water from the Wausau city water works. Sent by Dr. L. E. Spencer, H. O.

Water No. 1.

Part	s per 100,000.
Total residue	10.10
Mineral residue	4.40
Volatile residue	5.70
Chlorine	.150
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.020
Saline ammonia	.003
Albuminoid ammonia	.013

Water No. 2.

	Parts	per 100,000.
Total residue		9.20
Mineral residue		4.50
Volatile residue		4.70
Chlorine		.150
Nitrogen as nitrites		.0000
Nitrogen as nitrates		.020
Saline ammonia		.006
Albuminoid ammonia		.011

August 5, 1898.—Sent by Dr. G. L. Buland, Greenwood, Wis.

	Parts	per 100,000.
Total residue		5.80
Mineral residue		2.80
Volatile residue		3.00
Chlorine		. 140
Nitrogen as nitrites		.0000
Nitrogen as nitrates		.040
Saline ammonia		trace only.
Albuminoid ammonia		.001
Exceedingly pure.		

FACTORY AND CITY MILK TESTS.

Blanchardville.	Per cent. fat.
Per cent. fat	Frank Krescine 4.8
H. Hendrickson 4.2	Frank Krescine 4.6
C. Devoe 4.4	F. Schleiwe 3.8
Peter Rood 4.5	F. Schleiwe 4.3
Hiram Horner 4.4	C. Eiferd 4.2
Ole Moe 4.4	
M. Corbin 4.1	Watertown.
Dan Kinze 4.0	•
Jos. Bernat 4.3	E. O'Conners 4.6
John Kinze 4.1	E. O'Connors 4.1
Levi Patridge 4.4	W. Triplit 3.8
Ed. Daley 4.2	W. Triplit 3.9
Jos. Gavigan 4.1	John Buckley 4.8
	E. Rodelaf 4.1
Burnett.	John Ryan 4.4
	John Ryan 4.4
August Luck 3.8	John Doarcy 4.7
Herman Luck 4.5	E. Neilite 4.6
Otto Koch 4.2	C. Rusch 4.4
August Schultz 4.1	M. Manning 4.4
Peter Young 4.0	
Wm. Luck 3.4	Blanchardville.
Carl Pautsch 3.8	<u> </u>
Carl Pautsch 3.8	Wm. Flint 4.6
Wm. Pautsch 4.2	D. McGrath 4.2
Wm. Pautsch 4.4	D. McGrath 4.7
M. Donovan 3.0	D. McGrath 4.0
M. Donovan 3.3	John Penniston 4.3
Herman Gruetzmacher 3.8	Nels Nelson 4.3
John Gras 4.3	A. Flint 4.2
an a 1	Theo. Vinger 3.8 Theo. Vinger 4.4
Silver Creek.	Theo. Vinger 4.4 John Wyss 4.0
35 33 8 4.7	John Wyss 3.8
Mrs. Eugene Sweeny 4.7	Geo. Flint 4.0
Mrs. Eugene Sweeny 4.4 A. Kanndt	Gustav Vinger 4.2
	Gustav Vinger 4.0
	Gustav vinger
	Hollindale.
go · · · · · · · · · · · · · · · · · · ·	Hommadie.
Wm. Kresensky 4.4 Wm. Kresensky 4.2	Mrs. M. Gaylord 4.4
A. Schlaue 5.0	Mrs. M. Gaylord 3.6
F. Janke 4.8	Sever Disrud 4.4
Fred Kuehl 4.9	Thos. Hendrickson 3.9
Fred Kuehl 5.0	Ben Holland 4.0
Chas. Hoft 4.0	K. Edmond 4.5
CHAS. HUIL	Digitized by GOOGLE
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Per ct. o	f fat.	Per ct. o	of fat.
John Weiss	4.4	Peter Larson	4.1
Joshua Robison	4.0	Abe Johnson	4.0
E. Leonard	4.0	H. D. Rodgers	3.8
E. Leonard	4.6		
21 2002414 11111111111111111111111111111		Orfordville.	
Mill Creek.		0,70,20,00	
m 555 67 COM.		Geo. Bernath	5.6
Robt. Owens	4.1	Geo. Beinath	0.0
	4.1	Yankee Hollow Factory.	
John Davis	4.8	lunkee Hollow Factory.	
Mite Bros		T.1	
Mite Bros	4.3	John Kain	3.8
John Williams	4.8		
O. Roberts	4.3	Brighton.	
Elisha Dodge	4.5		
Wm. Randall	4.2	Ferd. Seltz	2.60
Wm. Randall	4.1		
J. Murray	3.8	Arena.	
Frank Stapleson	4.8		
Wm. Ruggles	3.8	J. Roethlisberger	4.45
Peter Murphy	4.5	3	
John Jager	6.9	Richfield.	•
John Jager	•••	2010/1/000	
Blanchardville.		Carl Hilt	4.0
Branchar activo.		Wm. Weller	4.2
(Sent by Bosshardt.)		Henry Laudenheimerbelow star	
	4.8	Henry Laudenheimer	4.4
Mrs. Wang	4.5		4.7
A. Emberson	4.3	Geo. Sauer	
E. Logeson		Conrad Schadt,	4.1
R. E. Blake	4.2	Conrad Schadt	4.9
Wm. Blanchard	4.1	D. Abling	4.4
A. Anderson	4.4	E. Conrad	4.6
Ole Olen	4.8	Wm. Greesman	3.8
		Wm. Greesman	4.3
Crystal Spring.		Geo. Conrad	4.2
		Mrs. Mary Dickel	4.4
John Closkin	5.2	Peter Miller	4.0
R. Yapp	3.8	Peter Miller	4.0
D. Doyle	4.5	J. Elmerman	3.9
John Morris	5.3	A. Shank	3.9
H. Jones	4.5	J. Schuster	4.2
Mrs. Jas. Doyle	4.2	J. Schuster	3.8
Wm. Thomas	4.1	Chris. Staser	4.3
II. Bomberry	4.8	Wm. Wolf	4.9
Robt. Creigner	4.2	H. Thoma	4.5
Lawrence Jones	4.8	H. Baumgardner	4.3
II. Bomberry	4.8	A. Nab	3.7
F. Buesler	3.9	Peter Conrad	4.5
David Morris	4.4		3.8
David Morris	4.4	Fred Patchin	3.0
Blanchard ville.		Oak Grove	
Biancharaviile.		Oak Grove.	4.0
(Demand France)		Theo. Omstedt	4.2
(Rogers' Factory.)		C. Mekelburg	3.8
Mrs. M. Cavanaugh	4.7	John Flasch	4.4
John O. Johnson	4.1	Frank Ohmstedt	4.6
Chas. Jacobs	4.7	Albert Zimmerman	4.3
John Johnson	4.6	Herman Tesch	5.8
Louis Larson	4.4	A. Horn	4.7
Ole Paulson	4.4	Aug. Zimmerman	4.2



Per cent. o	f fat	Per cent. o	if fat.
Aug. Neis	4.8	Spurbeck & White	4.2
Aug. Wegner	4.6	H. Jackson	4.2
A. Sumnicht	4.4	Charlie Waterberry	4.0
Aug. Sell	4.4	J. W. Bahey	4.7
Wm. Weinhelmer	4.8	Baker Bros	4.6
John Schraven	3.9	Ed. Ames	4.2
		E. Welsh	4.2
Manitowoc.		J. S. Blodgett	4.9
		E. Hand	3.2
Mrs. Peck	3.6	R. Mills	4.4
F. Lipke	4.0	Millard Mills	$\frac{4.2}{3.9}$
Mrs. Schumacher	$\frac{2.0}{4.3}$	Frank Babcock	$\frac{3.5}{4.2}$
Mary Pieder	3.3	Thos. Howard	4.3
F. Lipke	3.9	C. Boyce	3.4
T. J. McCarty	3.9	Robt. Lee	4.0
T. J. McCarty	3.6	Robt. Whery	3.9
A. H. Heise	3.8	Frank Kinney	4.0
A. II. Heise	3.0	H. August	4.4
John Jaar	4.1	Rockwell Bros	3.8
John Jaar	4.1	Thos. Keefe	4.3
T. J. McCarty	4.1	J. A. Shepherd	4.3
S. Herzog	4.2		
J. E. Harris	4.1	Spring Prairie.	
J. E. Harris	4.1		
7711.1		J. H. Zigg	3.8
Elkhorn.	,	P. W. Houghton	$\frac{4.3}{3.7}$
Frank Finley	4.2	O. Pratt	4.4
W. Dunbar	4.5	O. Vaughn	4.3
Wm. Dunbar	4.6	Mark Foot	5.2
David Crabtree	4.2	E. Merrick	3.5
II. Parks	4.8	Ed. Weiners	4.2
H. McKay	4.2	Frank Humbert	4.2
A. D. Stanford	4.4	Belle & Co	3.8
F. Baker	4.0	Tom Decoudres	4.2
C. F. Flanders		L. Humbert	3.5
E. H. Morgan	4.8	George Vaughn	3.9
John Roach	4.1	George Camer	4.0
J. H. Strong	3.7	Nick Camer	3.8
Wales & Goodrich	$4.0 \\ 4.4$	Will Paulsen	4.1 4.4
Wm. Umness	3.8	A. Paulsen	4.4
A. Murphy	3.8	O. H. Phelps	4.1
John Slattery	3.8	Wm. Mitchell	4.2
D. Harrington	4.2	Wm. Blount	4.6
Wm. Morrisey	5.4	H. Vaughn	3.8
I. Morehouse	3.5	George Fratt	8.6
C. Wilke	5.0	Merrick & Co	3.4
Pat. Morrisey	3.6	A. S. Wortman	4.1
Jos. Welsh	6.2	W. I. Loomis	4.1
P. Purdy	3.6	Tom Watson	3.2
John Finley	4.6	Paulsen, Sr	4.3
John Finley Extra bottle from	4.6	Paulsen, Sr	4.0
John Finley Extra bottle from B. B. Taylor's herd	4.6	Paulsen, Sr	4.0 3.6
John Finley Extra bottle from	4.6	Paulsen, Sr	4.0

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Per cent. o	of fat	Per cent.	of fat
G. Merrick	3.0	Ida Folson	3.6
Wm. Zabier	4.0	A. H. Rogers	4.5
Frank Miller	4.4	F. Lasher	3.8
Wm. Vaughn	4.8	Will Wright	3.6
Frank Patton	3.8	F. C. Barker	4.7
A. Clark	4.0	J. Keough	3.7
P. Nelson	4.6	O. C. Gates	4.4
Charley Meyers	4.1	C. S. Babcock	3.7
George Williams	3.7	L. Marks	3.8
Chas. Cadow	4.7	L. I. Olds	4-2
J. C. Greenman	4.3	James Black	3.8
Joseph Forge	3.3	Fred Wate	4.4
E. Whitmore	4.2	T. Krebs	3.4
Bert Whitmore	4.8	H. I. Krebs	3.5
Reik Bros	4.6	Carl Krebs	3.8
Will Miller	4.1	Albert Krebs	4.2
Henry Neip	4.0	Fred Helmer	3.7
J. S. Whitmore	4.0	Sam Anderson	3.4
		Chris. Greedwood	4.1
Whitewater.		C. G. Hamilton	4.2
		T. Thorson	3.8
Mrs. James Pollard	3.6	Ed. E. Wesby	4.1
James Hackett	3.6	F. W. Stoney	4.3
Warner & Freeman	3.7	Ben Wesby	4.1
Solomon Taft	4.1	Erv. Bates	3.6
John Peacock	4.2	Jim Murry	3.7
Floyd Vail	4.0	Frank Hammond	4.8
Hull & Crumb	4.4	Will Dooley	4.4
Doubleday, Wilber & Co	3.6	A. W. Shepard	3.8.
Mrs. Ed. Smith	3.8	S. G. Lake	3.9
Fred Doubleday	4.0	S. S. Jones	3.6
Herman Wegnar	4.4	M. Hoov	4.0
Ed. Simonson Truman Taft	3.8	P. Sornsen	4.9
Taylor Pieck	3.9	P. G. Snyder	3.6
Peter Williams	3.5	G. B. Golbertson	3.6 3.8
H. J. Roe	4.3	D. D. Winkley	3.0 4.3
11. 8. 1606	1.0	T. Nitz	3.8
Clinton.		Will Minkey	4.2
· · · · · · · · · · · · · · · · · · ·		W. M. Smidt	3.7
C. Griswold	3.8	B. Hollenbeck	3.6
C. Nelson	4.0	August Kreb	4.2
A. Peterson	3.7	S. Brutelson	3.8
C. J. Furset	3.8	J. M. Conroy	3.8
W. F. Christman	3.6	H. Cooper	4.3
Thomas Olson	3.25	E. Hogan	4.2
Carl Christofferson	3.8	Michael Tygue	4.0
F. Simmons	6.8	T. C. Conroy	3.9
A. Rėddin	4.2	August Hahn	4.0
N. P. Lawson	3.4	W. P. Woolston	4.4
T. L. Johnson	3.2	Peter Swenson	3.5
J. Nelson	3.6	C. Loomis	3.8
S. C. Jensen	4.1	M. Riegort	4.5
E. P. Babcock	4.3	C. A. Salisbury	3.8
H. Cheesman	4.0	L. R. Christman	3.4
J. Henning	4.0	Parley Isham	4.6
C. Zick	5.1	Will Hamilton	4.4
A. B. Rogers	4.2	E. L. Benedict	4.0

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Per cent. o	f fat.	Per cent. o	f fat.
H. Baling	3.5	L. E. Hildrethwa	tered.
T. Fonda	4.1	James Carrison	3.7
Fred Frank	4.5	Sorem Peterson	4.4
Harry Griswold	4.4	B. Johnson	3.5
			-
C. L. Tuttle	4.0	W. Larmer	4.1
J. Kelley	3.8	A. Asterhiem	4.0
Ed. Merriman	4.1	E. Amundson	4.1
Skim milk, No. 1	0.1	S. Stockton	4.2
Skim milk, No. 2	0.05	Ole Otterson	4.0
			4.6
Buttermilk	0_1	W. R. Galley	
H. W. Christman	4.0	William Careson	4.0
		E. A. Wright	4.4
Deerfield.		S. Asterhiem	4.2
,		J. Larum	3.4
Mrs. O. Borgerud	4.2	E. Gilbertson	4.0
-			3.7
H. Bjoen	3.8	Hans Peterson	
H. Huge	3.8	W. H. Leary	4.2
E. Bjoen	3.9	Sam Miles	3.9
H. A. Bjoen	3.8	Utter & Gilbertson	4.2
K. Odden	4.0	Mrs. N. C. Lee	4.2
		H. H. Emery	5.0
P. Nordle	4.6	=	
T. Kingland	4.8	Ole Beadle	4.1
A. Swan	4.6	Bossingham & Ourud	4.2
B. Berge	4.3	W. Bossingham	5.0
A. Lee	4.8	W. J. Bossingham	4.2
Johnson Company	4.4	J. Richardson	5.0
		T. Jehn	5.0
O. Houghton	4.1		
E. Golleckson	4.0	Chrls Hanson	3.6
T. Smlthback	3.8	John Strain	3.3
C. Hanson	4.8	H. Hanson	3.6
P. Longhill	3.′8	C. Hanan	4.2
Roplan Bros.	4.0	G. Hanan	3.4
		Morrison Bros.	3.6
G. Bosben	4.0		
E. Johnson	4.6	A. Thorson	4.3
H. Howe	3.6	S. O. Swim	4.2
J. Lenaas	3.8	O. Paulson	3.6
P. Paulson	4.0	H. Bowin	4.7
N. G. Nelson	5.0	G. Jehm	4.0
		R. Larson	
II. Rothe	3.8		3.6
A. N. Lee	4.0	G. Huber	3.4
N. Williams	3.8	S. L. Graves	4.0
M. Berge	4.1	C. Nelson	3.6
Ole Tetllone	3.6	F. Guinup	4.0
L. Tellong	3.6	C. A. Peterson	4.0
T. Larson	4.1	or 120 2 000-2002	
		4 277 -	
N. Soberg	3.5	${\it Auroraville}.$	
J. Lee	3.8		
M. Erdal	4.6	O. Austract	3.7
Mrs. A. Koste	4.2	Thos. Jones	3.4
Ole Flom	4.4	C. A. Davenport	3.6
Ole Havey		1	
	4.2	Jasin Shead	3.4
Skim milk	0.1	N. W. Herrington	3.7
Skim milk	0.05	Chas. Bower	4.1
		D. W. Cate	3.6
Stoughton.			3.4
		John Rodencil	
,		John Rodencil	
-	9.7	П. Blaze	3.8
Charles Hildreth	3.7	H. Blaze	3.8 4.0
Charles Hildreth	3.7	H. Blaze Jos. Seaman E. Rođencii	3.8
Charles Hildreth		H. Blaze	3.8 4.0

Per cent. o		Per cent. o	f fat
P. Dobbins	3.4	C. Rasch	3.6
F. Williams	3.7	N. Hahn	4.1
E. G. Walker	3.5	John Swenson	3.8
Mrs. A. F. Clark	3.9	A. McCafferty	4.0
F. D. Mitchel	3.6	G. Koppish	3.7
Will Hall	4.2	John Memler	3.5
E. M. Jones	4.0	Wm. Davis & Son	3.7
Rob. Mitchel	4.0	Wilton.	
B. T. Davenport	3.6	E. M. McCann	3.6
•			
Appleton.		. Wilmot.	
John Carey	3.4	D. Vincent	3.3
John Carey	3.7	J. R. Hyde	3.6
Silas Kolmer	3.2	William Schmidt	3.2
C. Rohl, mixed	3.3	C. Frank	3.8
Geo. Schroeder, mixed	4.0	N. Hahn	3.9
O. Carey	3.9	John Memler	4.05
O. Carey	3.3	A. Scherf	4.75
J. Meltz	3.0	A. McDougal	3.6
Pasteurized milk	3.6	C. Rasch	3.8
		William Albright	3.8
Sent by L. E. Hildreth, Stough	ton.	William Brenckman	3.6
		A. McCafferty	4.15
a. m.	p. m.	J. Swinson	4.0
1 3.3	3.6	A. Liedke	3.6
2 2.8	3.0	F. Hasselman	3.5
3 3.0	3.0	John Kenis	4.1
4 2.4	3.8	C. Dowell	3.9
5 3.0	3.2	William Davis & Son	3.2
6	3.2	G. Coppish	3.8
7 2.75 8 3.6	3.3	John Gauger	4.2
_	4.0 3.8	F. Scott	$3.6 \\ 3.4$
		`	3.2
10 3.2 11	$\frac{2.8}{3.8}$	M. Dugan	3.6
12 2.9	3.0	Fred Pagel	3.6
13 3.1	3.3	William Folbright	3.8
10 3.1	0.0	M. Coppish	3.4
Wilmot.		M. Coppisi	0.1
		Amos.	
F. Hasselman	4.8		
O. Liedtke	3.0	Martha Lindy	3.5
W. Schmidt	3.7	E. J. Nasset	4.0
John Kenis	3.9	L. C. Kravick	3.4
F. Pagel	4.3	Jens Peterson	3.7
John Hasselmanbottle b	roken.	S. E. Anderson	4.2
Charlie Fronk	3.8	J. J. Nassett	3.6
John Gauger	4.4	I. J. Nassett	4.2
Mrs. C. Gauger	4.4	Paul Jensen	4.4
Chas. Dowel	3.8	S. P. Saunders	4.0
M. Koppish	3.6	Walt Wicken	3.6
D. F. Vincent	3.5	L. Marsden	4.2
Frank Scott	3.8	Sam Marsden	4.2
Wm. Albrecht	3.8	Ben Cooper	4.2
H. Brinkham	4.0	Sam. Hall	3.8
A. Scherf	4.4	A. P. Grandall	4.4
Wm. Folbrecht	3.7	Peter Paulsen	3.7
J, R. Hyde,,	4.0	C. Nelson	4.1



Per ct. o	f fat	Per ct. o	f fat
O. I. Wicksman	3.8	W. Cheney	3.6
Ole O. Oss	3.6	A. Chamberlain	3.8
O. M. Nelsonbelow star		J. D. Clowes	4.0
L. Carpenter	4.0	A. Randall	8.95
H. H. Omry	4.0	r'. Cheesbro	4.9
M. P. Balga	3.9	A. Thompson	4.2
J. J. Homly	4.2	Skim milk from separator	0.1
H. H. Gunderson	3.0	*M. J. McCarthy	4.6
Ole Johnson	3.6	*A. D. Clark	4.6
A. Nassett	3.4	Buttermilk	0.1
Mrs. Wiseman	4.1	Buttermink	0.1
J. O. Lee	4.5		
H. Jacobs	3.7	Amos.	
O. O. Lee	4.3	A.,,,,	
Mrs. A. Simons	4.8	A. Anderson	4.5
Mrs, T. Lien	4.5	E. J. Nassett	4.4
H. Christianson	4.6	E. E. Smithback	3.4
John Simons	4.2	J. M. Jacobs	4.6
M. Olson	4.4	Martin Lindy	4.0
N. Anderson	3.7	S. E. Anderson	4.5
M. Anderson	0.1	O. S. Ralson	3.8
Fairfield.		Gus Ralson	4.0
1 447 / 1004		L. C. Garrick	4.0
Fred Seaver	3.6	Gus Peterson	4.2
B. Monroe	3.6	H. O. Lee	4.1
A. G. Clowes	3.7	T. Johnson	4.3
E. Wetmore	4.1	K. E. Monaas	4.4
J. C. Putnam	3.3	Otto Anderson	3.7
R. More	3.4	Isaac Dickinson	3.8
W. More	3.5	Isaac Dickinson	3.9
A. D. Clark	4.0	Sam Larson	4.2
S. W. Gage	3.4	A. H. Lee	4.0
Geo. Christie	3.4	Ole Ellingson	4.2
Jas. Cutter	4.0	L. O. Lien, Jr	3.6
Jane Terwilliger	3.7	P. N. Johnson	3.8
Geo. Mayer	4.0	P. N. Johnson	4.1
H. Wilkins	3.2	J. J. Nassett	4.3
M. J. McCarthy	4.0	A. P. Crandall	4.4
A. Merrell	4.2	C. Nelson	4.4
Levi Inman	3.1	O. L. Wicksman	4.3
C. Hoffman	4.3	O. M. Nelson	4.1
O. P. Schwartz	3.7	Peter Paulson	4.0
C. E. McCarthy	3.1	Ole O. Oos	4.1
J. Wofran	3.8	L. Carpenter	5.1
A. P. Wilkins	4.0	H. H. Homry	4.5
A. E. Monroe	4.4	N. P. Balky	4.1
S. D. Serl	3.7	J. J. Homry	4.3
M. D. Edrige	3.8	H. H. Gunderson	3.4
F. Chamberlain	4.0	Ole Johnson	4.4 3.7
W. Finster	3.1	A. Nasset	5.0
L. Larson	4.5	Paul Jenson	4.2
D. Nelson	3.4 3.6	S. P. Saunders	3.6
V. Arnold	3.8	L. Manersdon	4.6
F. Wilkinsbelow star		Sam Manersdon	4.8
Jas. Stewart		Ben Cooper	4.2
P. E. Olson	3.9		
A. Johnson	3.8	*Sold to be composite tests from	a fac-
C. Borklund	4.0	tory samples.	

Per ct. o	f fot	Per ct. o	f fat
Sam Hall	4.3	E. J. Bolger	
M. Carlson	4.6	J. Lacy	•••
M. Carlson	3.6		
Sam Kump	3.5	Monroe.	
L. Kump	4.4		
L. Kump	4.2	Albert Utiger	3.8
Mrs. Wiseman	4.9	Albert Utiger	3.6
L. O. Lien	4.2	Peter Jenny	3.7
O. O. Lien	3.9	John Gygle	3.6
H. Jacobs	4.2	L. Feldman	3.7
Mrs. A. Simondson	4.8	Jake Tuescher	3.4
John Simondson	4.2	John Fazier	3.8 3.4
Hans Christianson	4.8	Wm. Pickett	3.8
M. Olson	3.6	A. Beyer	4.2
N. Anderson		J. Kennison	3.6
and the first of the first fig.		Ed. Underwood	3.4
Contract to the first track to	٠ ـــ	Wm. Holmes	3.6
Waterloo.		Fred Keen	3.7
		G. M. Morris	3.4
P. Byrns	4.0	G. M. Morris	4.0
G. Cane	4.0	Fred Ainsworth	3.8
M. Gaffney	3.5		
F. Henning	4.0	Montfort.	
M. Joice	4.0	G	
J. Joice	4.0	C. Waves	3.6
F. Hanky E. Klecker	4.3	G. Holsetter Thos. Sullivan	3.3 3.6
F. Kreger	3.8 4.0	Ole Melham	3.4
F. Kittlehorn	4.0	Sam Nelson	3.4
W. Lang	4.0	John Draves	3.2
W. Beitz	4.2	John Draves	3.2
J. Murray	3.6	Christian Neuroth	3.7
N. Mudvany	3.8	Andrew Moon	3.8
G. Porter	3.8	A. P. Chandler	3.6
M. Powers	• • •	C. T. Rodolf	3.7
N. Roth	4.7	I. G. Everson	3.3
A. Schuber	3.8		
P. Sullivan	3.4	Waterloo.	
F. Stark	4.0	A154 37-1-	3.9
M. Torpey	3.8	Albert Yale	3.0
M. Wittee	4.0	August Haberman	3.2
M. Wickhem	3.4	Gotfrit Ortwich	4.6
II. Schultz	4.3	Fred Rager	3.6
Ferd. Kegler	3.8	Gus Cord	3.3
W. Giese	4.0	E. Ratzlow	3.8
C. Zeich	4.0	Fred Heiman	3.0
T. McCormas	3.5	August Peshea	4.0
Drager & Bertinn	4.0	E. Draeger	3.6
Ferd. Kegler	• • •	Herman Kruegger	3.4
P. Doyle	3.3	Karl Swanke	3.2
J. Leahy	4.0	August Rader	3.7
H. Deter		Karl Kezof	$3.8 \\ 4.2$
W. Blank E. Powers	$3.4 \\ 3.6$	H. Krukenberg	4.2
F. Schultz	3.6	Karl Bohn	3.6
Jas. Bolger	3.8	Herman Goshadish	4.6
John Powers	3.6	Aug. Steinhost	3.2
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Per ct. o	f fat.	Per ct. o	f fat.
Aug. Koltz	3.6	A. Haas	J.6
Otter Jacob	3.5	J. Lampkey	3.8
John Geli	3.6	J. Lampkey	3.7
Matt Adams	4.2	E. G. Carpenter	3.4
Aug. Barknecht	3.6	W. L. Root	5.2
Frank Nolton	3.7	W. L. Root	3.4
Fred Zelno	4.0	G. Sauerhammer	3.1
Wm. Tesch	3.3	F. Raprager	2.8
Ferd. Debbert	4.0	F. Raprager	4.3
Chris. Maske	3.7	Fred Relien	$\frac{3.8}{3.0}$
Aug. Draeger	3.6	Fred Norenberg (mixed)	3.6
Aug. Rice	3.6	Fred Norenberg	2.7
Wm. Shultz	3.8	Mrs. Barbara Wendel	4.2
Chris. Buss	4.0	C. Kanack	3.4
Wm. Shroeder	4.1	C. Kanack	3.4
Charlie Seeder	3.6	Will Relien	3.4
Bert White	4.3	Will Relien	3.2
Jacob Mocher	4.2	Will Relien	3.8
Andrew Schadel	4.4	A. Peters	2.5
Ferd. Grakof	3.8	A. Peters	4.3
Charley Gieshart	4.6	Frank Draheim	4.0
Aug. Maske	3.6	Sam Rupple	3.2
Wm. Abendroth	3.6	H. Hill	3.2
Albert Brownswich	3.8	H. Hill	4.2
Wm. Henski	3.6	A. Gast	3.6
Charley Draeger	4.2	A. Gast	3.8
Charley Draeger	3.8	Mrs. H. Nau, (mixed)	4.1
Charley Smith	3.7	Mrs. H. Nau, (mixed)	3.4
Ed. Strauss	4.3 3.8	H. Yankee	$\frac{4.0}{4.0}$
Peter Yale	3.6	Ole Olson	4.5
Robert Larch	4.2	Ole Olson	3.4
Bert Strauss	4.0	Phillip Hawk	3.9
Peter Faltersak	3.7	J. Deitz	3.6
Fred Consenbach	3.5	J. Deitz	3.6
Frank Sheaf	3.6	Fred Kanack	2.8
Elva Robins	4.0	Fred Kanack	2.5
Chas. Weisman	4.2	Fred Kanack	5.0
John Klecker	3.8	Arthur Hill	3.2
Peter Strauss	3.6	Arthur Hill	4.0
Aug. Redloff	3.8		
Chas. Strasberg	3.6	Waupun.	
Chas. Sickerer	3.6	77 77	
Medina.		K. Knudson	3.1 3.6
m earna.		H. Garrison	
Fred Breyer	3.5	T. Gill	$\begin{array}{c} 3.8 \\ 3.6 \end{array}$
Fred Breyer	3.8	P. Kingbelow star	
A. Stark	3.2	P. King	3.3
A. Stark	3.8	M. Van Buren	3.5
A. Abraham, (5 cans)	3.6	G. Buskirk	3.5
A. Abraham	3.1	G. Buskirk	4.2
A. Abraham	3.3	K. Everson	3.6
A. Abraham	3.6	E. Zollner	3.6
A. Abraham	3.8	Bacon & Deuschbein	3.7
J. Atsonbottle bi		J. Cronk	4.0
J. Atson	3.3	S. Sprager	4.3
A. Haas	3.8	S. Sprager	3.7

Per ct. of	fat.	Per ct. o	f fat.
4. Voight	3.4	Jas. Christianson	3.9
A. Voight	3.2	Peter Gerdon	3.8
F. M. Voight	3.7	Peter Gerdon	3.8
B. Fairbanks	3.6	Jacob Johnson	3.6
Isaac Duer	3.1	Albert Kirchoff	3.6
H. Duer	3.4	Jas. Campbell	3.7
H. Duer	3.9	Geo. Hams	3.4
S. Leeman	3.6	N. Klink	3.8
S. Leeman	3.2	Guy Young	3.2
F. Ohm	3.6	Guy Young	3.4
H. Boardman	3.4	Barringer Bros	3.6
H. Boardman	3.5	John Sullivan	3.8
H. Boardman	3.5	Fred Darling	3.8
F. Burmaster	4.2	Albert Bublitz	3.5
F. Burmaster	3.8 3.0	Albert Bublitz	3.6 4.0
H. Greenwald	3.3	A. Harter	3.5
Fieldstadt & Hollinder	3.9	Peter Webber	3.7
Fielstadt & Hollinder	4.2	Peter Webber	3.2
Fielstadt & Hollinder	3.4	reter Webber	۵.2
Fielstadt & Hollinder	4.1	Milton.	
Pielstaut & Hommuci		A	
Hartford.		Albert Klug	3.2
, , ,		Albert Klug	4.4
Wm. Kenealy	3.9	C. W. Fox	3.8
John Buckley	3.7	Wm. Vickiman	3.7
John Buckley	4.0	J. Schultzbelow star	
Richard Monroe	3.6	J. Schultz	4.5
Thos. Manning	3.1	Jas. Godfrey	3.4
D. W. Mountain	3.3	Jas. Sprackling	3.5
D. W. Mountain	3.8	Jas. Sprackling	4.1
Albert Kostdorf	3.4	Wm. Dixon	•••
Jas. O'Connor	4.1	Chas. Hackbarth	3.0
David Mountain	4.2	E. Brown	3.1
Jas. McNamara	$3.9 \\ 3.4$	E. Brown	3.2
Henry Brus Ed. Walsh	3.9	D. Harris	3.4 4.0
Jos. Russell	3.4	D. Harris	3.8
Dan Courtney	3.4	H. Newton	3.8
Thos. Jeffores	3.8	H. Newton	3.6
Jas. Kenealy	3.6	F. Windorff	3.8
John Hanrahan	3.7	A. Garbredgth	3.6
Dan Hanrahan	3.6	A. Garbredgth	4.0
Peter Guylfyl	4.0	A. Marquardt	3.2
J. T. Gary	3.5	A. Marquardt	4.1
J. T. Gary	3.4	H. Asborn	3.4
T. B. Manning	3.2	G. Shumway	4.2
John Jeffords	3.8	H. Tooker	4.0
H. A. Malloy	8.6	H. Tooker	4.2
		Q. Warnke	3.4
Neosho.		O. Warnke	3.2
Then Welmann	• •	A. Warnke	3.2
Thos. Halverson	3.8	F. Roloff	3.3
Louis Young	4.0	F. Roloff	4.6
Adam Bertzbelow stan	4.0	Wm. Frank	3.6
Thos. Nelson	4.0	Wm. Frank	3.6
Jas. Christoferson	3.8	Wm. Frank	4.6
P. Christianson	3.6	W. Thomes	$3.1 \\ 4.3$
** CHT1001011008	9. 0	1 Thomes	4.0

Per ct. of fat	
H. Krantz 3.3	R. Kubli 3.8
H. Clarke 3.4	J. Thomas 3.3
H. Clarke 3.1	J. Thomas 4.0
Wm. Harris 3.0	Nelson Rustbelow standard.
Wm. Harris 3.8	Nelson Rust 4.2
Chas. Hunt 3.5	G. Lenharr 3.5
Chas. Hunt 3.4	G. Lenharr 4.4
T. J. Oakley 3.6	Wm. Wood 3.8
T. J. Oakley 3.2	Wm. Wood 3.9
Geo. Bacon 3.0	J. Klassy 3.8
Geo. Bacon 4.2	J. Klassy 3.8
Geo. Church 3.6	J. Klassy 3.5
C. Palmer 4.1	J. Klassy 4.3
F. Westrick 3.8	A. J. Kean 3.3
	A. J. Kean 4.2
Seven Oaks Dairy.	Mrs. K. Alleman 3.6
	f
	•
10 1.9 4.3	Henry Brown 3.4
25 3.6	Henry Brown 4.3
8 3.4 3.8	H. Baebler 4.0
19 3.2	H. Baebler 4.1
18 2.9 3.8	G. Nafzger 3.2
3 3.1	G. Nafzger 4.3
20 2.8 4.0	O'Connor Bros 3.4
4 3.2 4.1	O'Connor Bros 3.7
5 2.4	F. Kremer 3.6
	G. Griffith 3.2
16 3.3 4.9	G. Griffith 3.9
11 3.8	J. Elmer 3.6
12 3.2 3.8	J. Elmer 3.8
15 2.8	H. Elmer 3.0
1 3.1	H. Elmer 4.4
28 2.1	J. Dougherty 3.9
23 3.2	J. Dougherty 4.9
24 3.3 4.2	C. Griffith 3.8
6 4.2 5.4	C. Griffith 4.2
2 4	A. L. Berryman 4.0
21	J. Regez 4.0
	J. Regez 3.9
22 3.8 4.4	J. Regez, (mixed) 5.2
13 3.5	
17 2,5	Watertown.
27 2.7	
29 2.2	Herman Graining 3.6
31 3.8	Herman Graining 5.0
40 3.8	Wm. Graining 3.8
26 3.4 4.1	Wm. Bishoff 3.8
	Jos. Holstein 3.6
Monroe.	Wm. Eickstadt, (mixed) 3.9
## UNI UU.	Wm. Eickstadt, (mixed) 3.4
n notes	Wm. Eickstadt, (mixed) 3.8
P. Dolan 8.4	
P. Dolan 4.0	Aug. Thoma
F. Benkert (2 cans) 3.6	Peter Thauer 3.9
C. Goddard 3.6	Peter Thauer 3.2
Geo. Garwell 3.4	Peter Thauer 4.6
Geo. Garwell 4.2	John Neis 3.8
S. Jackson 3.5	Geo. Meyer 3.8
8. Jackson 4.2	John Sullivan 3.4
R. Kubli 8.6	John Sullivan 5.2
	•

Per ct. c	of fat.	Jackson.	
G. Astrick	4.6	Per ct. o	of fat.
C. Britzman	3.4	Henry Baumgartner	3.3
C. Britzman	4.1	Henry Baumgartner	4.1
C. Fisher	3.6	Louis Babbing	3.6
C. Fisher	4.2	Louis Babbing	3.7
Ed. McAdams	3.9	Rudolph Miller	3.5
Ed. McAdams	3.3	Rudolph Miller	4.7
Ed. McAdams	3.0	Peter Weber	3.8
J. Lehman	3.4	Peter Weber	4.3
J. Lehman	4.0	Otto Nenobelow star	adard.
Peter Klinger	3.8	Otto Nenobroken	bottle.
J. Barger	3.1	John Rice	3.0
J. Barger	4.2	John Rice	5.2
		Philip Schowalter	3.8
		Philip Schowalter	4.5
Watertown Welsh Road Cream	e ry.	A. Schowalter	4.0
•		A. Schowalter	4.3
H. Weihert	3.5	Chris. Brenner	4.7
John Huss	3.2	Chris. Brenner	5.0
John Huss	4.8	Chris. Brenner	3.5
Henry Burmaster	3.4	Philip Brenner	4.5
V. Doby	3.8	Philip Brenner	4.3
T. Wedenmeyer	3.3	Fritz Neperbas	3.9
T. Wedenmeyer, (mixed)	3.0	Fritz Neperbas	4.3
T. Wedenmeyer	4.0	M. Bower	3.9
W. Schultz	4.0	M. Bower	4.3
W. Schultz	3.6	Henry Thoma	4.3
A. Stuber	3.0	Henry Thoma	3.8
A. Stuber	3.6	Henry Thoma	4.2
A. Stuber	4.2	C. Pickart	4.4
M. Bock	3.3	P. Lohr	3.8
M. Bock	3.7	John Yagle	4.0
F. Kreitiziger	4.2	Chris. Yagle	3.9
M. McGuire	3.5	Philip Nesbass	3.8
II. Last	3.8	Henry Showalter	4.8
H. Last	3.6	Henry Showalter	4.0
H. Last	4.2	Herman Tesch	3.2
J. Jones	3.5	Herman Tesch	4.4
J. Jones	3.2	John Nerbass	3.7
J. Jones	3.4	John Nerbass	5.0
J. Jones	3.4	Mrs. C. Nerbass	3.8
A. Kramer	3.7 3.8	C. Kertz	3.2
H. Kugath	4.4	H. Schmidt	4.0
H. Kugath T. Donahoe	3.7	H. Schmidt	3.6
T. Donahoe	4.0	A. Schmidt	4.4
Fred Westenberg	3.6	A. Schmidtbelow star	4.0
M. Solon	3.9	H. Thoma	
M. Solon	sour.		3.8
M. Solon	4.0	Monroe.	
K. Donahue	3.4	monroe.	
K. Donahue	3.8	Neuenschwander Bros	4.1
T. Rhodes	4.0	E. Bechtold	3.3
T. Rhodes	4.0	Joseph Ginner	3.8
T. Rhodes	4.2	G. Maley	3.8 4.4
T. Rhodes	4.2	Ashford Mourton	4.6
J. Roller	3.0	Neuenschwander Bros.	3.9
J. Roller	4.2	Chris. Zabel	ช.ช 4.0
Skimmed milk	.2	Chris. Zabel	4.5
			4.0



Per ct. o	of fat.	Fox Lake.	
J. W. West	3.0	Per ct. o	f fat.
F. Buehler	4.2	F. Schultz	3.2
F. Leopold	4.1	A. Bort	3.0
Carl Schreiber	4.0	F. Brunn	3.7
L. Williams	3.8	John Walterbottle b	roken.
John Hasse	4.4	Wm. Manto	3.4
John Hasse	4.0	F. Blossfeld	3.2
Fred Dieckhoff	4.0	W. Doering	3.4
Fred Dieckhon	1.0	S. Machkovech	3.4
		W. Baucer	3.0
Monroe.		W. Yarn	3.5
monroe.		W. Ludwich	3.9
Cooms Veller	3.9	A. Machkovech	3.7
George Kelley	3.7	S. Zemlo	3.8
John Martin below stee		E. Hoffman	3.8
Peter Regerbelow star Wm. Tonkinbelow star	dord	C. Hass	3.4
	3.0	R. Koleli	3.2
Wm. Tonkin		C. S. Porter	3.6
Steve Tonkin	3.4	M. Hueblein	3.8
Wm. Jewell, Sr	3.5	·	
Wm. Jewell, Jr	3.3	Monroe.	
Jos. Bennett	3.2	m 010, 00.	
Frank Vivian	3.8	Geo. Steitz	3.3
Will Vivian	3.6	Geo. Steltz	3.1
John Vivian	3.6	Geo. Steltzbelow star	
John Vivian	3.4	Henry Sweney	3.6
		Henry Sweney	4.0
		Jas. VanMeter	3.1
Linden Factory.		Jas. VanMeter	3.2
		Newton Baker	3.1
Albert Hellery	3.9	Newton Baker	3.2
Charley Tremain	3.6	Fritz Woolf	3.6
C. Goldmann	3.6	G. Hebnerbelow star	ıdard.
John Brewer	3.9	G. Hebnerbelow star	
Wm. Batten	4.0	Mrs. M. Brasian	3.5
C. Dolphin	3.8	Gus. Morman	3.9
Henry Reynolds	4.4	Gus. Morman	3.1
Wm. Tremain	4.6	A. Neiffnicker	3.0
J. Bailey	3.8	Geo. Drei	3.0
Wm. Buckett	4.0	Geo. Drei	3.1
Wm. Landauer	3.8	Geo. Dreibelow star	idard.
John Corell	3.6	G. Guddmanbelow star	ıdard.
Jas. Batten	4.3	G. Guddmanbelow star	adard.
Jas. Batten	4.2	G. Guddmanbelow star	adard.
Jas. Wasley	3.9	Henry Rudy	3.1
Holman Bros	4.0	Henry Rudy	3.3
Jas. Harvey	3.5	G. Augsberger	3.5
Charlie Williams	3.5		
		Marshall.	
16			
Monroe.		E. A. Sanders	3.6
ID (Dromitt	4.0	Wm. Porter	3.7
E. Trevitt	4.6 4.4	C. Beiterman	3.8
Charlie Goddard	4.4	II. Streichd	3.6
		O. Schultz	3.6
Fred Tschudy	3.7	A. Radke	5.2
V. Morton	4.4 3.8	J. Blaskie	$3.6 \\ 4.2$
Geo. Stauffucher	3.8	F. Kersten	$4.2 \\ 4.2$
Geo. Staumucher	o.0	C. Rothnic	ت. ت

Report of the Wisconsin

Per ct. o	of fat.	Per cent. o	
J. Kernsten	3.9	F. Battist	4.2
A. Dewey	3.4	Wm. Radkie	4.0
J. Muzzy	3.8	A. Chadwick	
L. Aurich	3.5	Wm. Ladwig	3.6
A. Burr	4.0	J. W. Smith	4.3
C. Streicht	3.6	Z T Prooks	3.9
H. Calkins	4.6	Z. T. Brooks	3.2
E. Martin	4.5	G. Biglow	4.4
Geo. Offord, Jr	3.7	T. Dowd	4.4
T. Hart	3.5	J. Hart	5.2
Mrs. E. Jager	4.0	O. Radis	4.8
Wm. Coleman		Skimmed milk, separator, No. 1	0.1
Wm. Radkie	3.8	Skimmed milk, separator, No. 2	0.1
Chas. Cooper	3.8	Butter milk	0.2
D G Thomas	3.8	Į.	
D. G. Thomas	5.5	Myra.	
A. Clipsman	3.8		
J. Heble	3.7	F. Devidek	\cdot 3.3
Wm. Shimble	4.4	C. Deitrich	3. ა
W. Worst	3.4	John Shafer	5.0
Mrs. Pershack	4.6	John Shafer	5.0
J. Hampshire	4.5	John Smith	3.5
A. Steinhorst	3.8	M. Fisher	3.2
H. Lackie	4.1	G. Toubier	3.8
J. Knapton	3.4	G. Toubier	4.9
A. Klecker	3.6	F. Wollendorf	3.0
M. Porter	4.2	F. Wollendorf	4.8
J. Vollner	4.2	M. Gaedon	
H. D. Walters	3.3	t in the second of the second	3.6
O. Sorenson, No. 1	5.2	M. Gaedon	3.7
O. Sorenson, No. 2.	4.8	Nick Engler	3.8
G. Baker		Nick Engler	4.6
F. Langer	3.2	W. Kregice	3.4
H. Beebe	3.8	J. Kregice	3.0
F. Radis	3.2	H. Meyer	3.8
F. Pribbenow	4.4	L. Esslemanbelow star	ndard.
F. Skalitsky	3.5	L. Essleman	4.1
C. Battist	4.0	Jag. Klinkabelow star	adard.
E. Langer	4.1	Jas. Klinka	3.8
John Lutz	3.5	Mrs. Anna Hemmie	3.0
A Wadaward	4.0	Mrs. Anna Hemmie	5.2
A. Wedeward	4.0	J. Chesak	3.1
H. Meyers	3.8	J. Chesak	3.2
Geo. Orfford	3.9	John Mrazik	4.2
Will Dochadis	3.5	J. Shafer	3.4
H. Kuether	4.2		
Wm. Sliciner	3.6	J. Shafer	4.0
Frank Skella	4.5	F. Kimla	3.7
W. Benisch	4.4	J. Riordan	3.3
F. J. Lander	3.7	P. Walter	3.5
V. Johnson	4.0	Wm. Coughlinbelow star	
Mrs. T. B. Wakeman	4.0	Wm. Coughlin	4.4
P. Furlong	4.2	Peter Golden	3.4
Wm. Agnew, No. 1	3.7	Peter Golden	3.8
Wm. Agnew, No. 2	4.2	I. Procinger	3.1
John White	4.2	M. Salter	3.5
H. Cone	4.1	M. Salter	3.8
J. Porter	4.0	Wm. Cotter	3.0
V. Shappe	3.9	E. O. Tool	3.5
C. Brussl	3.6	E. O. Tool	3.0
Wm. Kuhl	4.1	Peter Behrens	3.4
F. Sellnow	4.0	Peter Behrens	4.0
	4.0	Lecet Dentens	2.U

		Per cent. o	لند
Per cent. o			f fat. 3.5
N. Zeldinger	3.6 3.8	Aug. Voigt	3.8
Wm. Unger	3.5	l .	4.6
Sam Boldt	4.4	Fred Smith	8.0
Prochinger & Fechter	3.5	Charley Mielke	4.6
	3.8	Charley Mielke (mixed)	
Prochinger & Fechter	4.7	Fred Schultzbelow star	
Jas. Kowanda	3.0	Fred Schultz	5.0
Albert Brown		Chas. Miller	3.6
Beaver Dam.	-	Chas. Miller	4.5
, Beaver Dum.		Charley Rohmbelow sta	
Frank Krandle	4.4	Charley Rohm	4.4
Henry Baer	4.2	Wm. Schultz	4.1
J. Krandle	4.2	Henry Wendt	4.0
John Frank	4.1	Wm. Zeigenbein	3.8
David Evans	4.0	Chancey Daniels	4.0
Frank Frank	4.3	Anton Lotter	4.1
Valentine Smith	4.8	Anton Lotter	4.2
Joseph Hupf	4.0	Fred Nagle	4.8
Amos Wise	5.0	Fred Nagle	3.7
J. Groft	4.0	Fred Nagle	4.0
John Banes	4.2	Herman Schultz	3.8
Wm. Banes	8.9	Herman Schultz	4.7
Thos. Glassman	3.4	Wm. Sherman	3.8
Geo. Heimler	3.6	Fred Prelipp	4.3
Christian Krebs	3.2	Peter McDonough	3.9
Christian Krebs	4.2	Aug. Mailahm	4.2
Chris. Leitcher	3.6	Wm. Martin	3.5
Chris. Leitcher	4.6	Wm. Martin	4.2
J. R. Finney (mixed)	5.3	A. Pollex	4.3
Wm. Prescott	4.2	Chas. Teck	$\frac{4.0}{3.7}$
Wm. Prescott	5.2	Chas. Teck	3.7
Henry Gabathuler	3.6	Julius Hintz	3.8
Ferd. Derge	3.8	Mrs. H. Sipler	3.7
		Aug. Krahn	4.7
Woodford.		Aug. Krahn	4.0
	0.0	Aug. Goldensdt	3.6
M. Miller	3.8	John Hurst	4.6
A. Pahl	$\frac{3.8}{4.0}$		5.6
E. Mahlkop	4.1	Albert Brugger	3.9
John Johnson	4.1	Albert Brugger	3.5
Wm. Blazing	3.8	Chas. Kollath	4.5
Miss M. Johnson	4.4	Chas. Kollath	3.0
G. Butt	3.5	Wm. Eick (2 cans)	4.6
Charlie Wells	4.2	Fred Beckman	3.6
C. Rouske	3.9	Fred Beckman	4.2
Wm. Gutsmer	3.7	l .	4.1
Wm. Gutsmer	4.6	Henry Spoude	4.6
Gus. Miller	3.7	Sam Knox	J.7
Gus. Miller	3.8	Sam Knox	4.2
John S. Wells	4.5	John Knox	3.8
D. D. Sawin	4.2	John Knox	4.0
John Stubbs	4.0	John Knox	4.0
		SOUTH TENOR	#.V
Seymour.		Platteville.	
John Wendt	3.7	Dick Miles	3.8
August Sax (mixed)	3.7	Jas. Condon	3.2
Henry Brockman	3.6	Jas. Condon	2.8

Per cent. o			of fat.
Henry Steinhoffer	3.8	Henry Rohde	3.8
Joseph Edge	3.4	Henry Rohde	3.6
Joseph Edge	4.8	Fred Huebener	3.8
Adolph Kuehl	3.2		
Adolph Kuenl	5.0	Tess Corners.	
John Callaway	4.0		
Sam Polandbelow star		R. Wolmer	4.5
Sam. Poland	4.6	Sam Bass	4.2
Charley Dickinson	3.6	Wm. Ludwig	3.7
Warren Johnson	3.5	Wm. Ludwig	4.5
Warren Johnson	4.4	Charlie Kurth	4.1
Thomas Kenny, Jr.	3.9	L. Pellman	3.5
John Kennybelow sta		L. Pellman	4.1
John Kenny	5.2	R. Holz	3.4
Thos. Kenny, Sr	4.2	R. Holz	3.5
Peter Klingsmith Edward Bride	3.2	R. Holz	5.2
Robert Hale	4.0	A. Laughney	3.2
Henry Winke	3.5	A. Laughney	3.9
Fred Byer	4.0	A. Riese	3.0
David Condry	8.6	A. Riese	3.9
David Condry	8.9	R. Kurth	4.2
Jay Reweybelow sta	4.6	R. Kurth	3.4
Jay Rewey	4.2	R. Kurth	3.7
G. S. Whitcher	3.4	John Nieman (mixed)	4.2
G. S. Whitcher	4.2	John Nieman	4.5
Isalah Butsonbelow star		Otto Kripline	3.6
John Billings	3.2	Henry Muehl	3.4
Wm. Craven	3.8	Henry Muehl	5.0
Henry Snyder	3.8	John Smith	3.1
John Billings	3.2	John Smith	4.2
John Billings	4.0-	Charlie Smith	3.4
G. S. Whitcher	4.6	Charlie Smith	4.8
Lee Whitcher	3.3	Charlie Martin	3.2
Lee Whitcher	4.5	Charlie Martin	4.8
Jas. McClurg	3.5	Wm. Martin	3.4
Jas. McClurg	5.4	Wm. Martin	4.6
		Barney Phillips	8.6
•		Barney Philips	3.6
		Mrs. Anna Goff	3.5
Monroe.		Mrs. Anna Goff	4.0
		Julius Ruehl	4.4 4.7
Jeremiah Goodman	3.7	John Burnsbelow sta	
Jeremiah Goodman No. 2	3.6	John Burns	4.0
J. VanMeter	3.4	Charlie Doughertybelow sta	
A. Neiffnicker	3.4	Charlie Dougherty	5.1
H. Sweeney	4.3	Henry Boldt	3.2
Mrs. O. Busjahn	4.4	Henry Boldt	3.8
Fred Woolf	3.7	Henry Boldt	4.0
Geo. Steltz	3.0	Ed. Holz	4.4
Geo. Steitz	2.9	P. Weinhoff	3.4
Geo. Steltz	3.1 4.0	P. Weinhoff	4.5
Newton Baker	3.9	F. Repke	3.7
Newton Baker	4.0	F. Repke	4.6
Gus. Morman	3.6	I. Cobb	3.7
Gus. Morman	4.0	I. Cobb	4.4
Geo. Drye	3.4	I. Cobb	4.0
Geo. Drye		Phillip Grossbottle b	

Per cent.	of fat	Per cent.	of fat
Phillip Gross		Paul Disch	3.7
Phillip Gross		Paul Disch	3.8
Phillip Gross		Henry Elmer	3.0
Phillip Gross		Henry Elmer	4.0
Inimp Gross	1.2	Jos. Elmer	3.0
Monroe,		Jos. Elmer	3.0
<i>Mono de</i> .		Jos. Elitet	3.0
Mrs. Louisa Losberger	4.0	Fennimore.	
Wm. Chambers	4.0		
Wm. Koepnick	3.8	Henry McLimans	3.0
South Bros	3.6	John Yunek	3.7
Abraham Hefty	3.4	Geo. Finnegan	3.2
Frank Albright	3.6	P. H. Finnegan	3.0
W. F. Glese	3.4	Fred Wehrle	4.1
John Becker	3.4	Fred Wehrle	5.5
boun becaes	0.1	Dan Streder	4.0
Hawthorn.		Al. Barnum	3.9
11 W. V. VIII .		Abe Howell	3.6
Perry Divan	5.2	Lou Doeringsfeldbelow sta	
Jas. Hoffman	4.4	Lou Doeringsfeld	4.2
Fred Dahms	4.4	Aug. Kress	3.4
Dan Haren	4.2	Aug. Kress	4.7
Zimri Beach	4.8	Dick Kruel	3.5
Geo. Bailey	4.5	Dick Kruel	4.8
Abner Drake	4.3	Henry Vesperman	3.4
Anton Jenny	3.9		4.0
Turner Whitehead	5.0	Charlie Napp	3.1
Jacob Hoffman	4.0		4.8
John Hawthorn	4.0	los. Edge	3.8
Americas Adams	4.4		3.6
Gustav Schadewald	4.0	lay Morse	3.5
Peter Gnagi	3.6	D. Dores'	3.3
Geo. Eaton	3.8	Isaac Keys	4.0
Ed. Wells	5.0	Isaac Keys	4.0
C. Wells	4.4	Eugene McDonald	5.0
John Vogle	3.7	Eugene McDonald	3.3
Harrison Campbell	4.4	Harry Draggs	3.7
Marrison Campbell	2.1	Thos. Edge	
Monroe.		Thos. Edge	4.3 3.6
		E. Baxter	4.2
Frank Dyebelow star	ndard.	R. J. Jones	4.2
Frank Dye	5.2	John Napp	4.0
John Thomas	3.6	Fred Rechter	3.2
John Thomas	4.5	Fred Rechter	3.4
Alvin Kean	3.5	F. Walker	3.2
Alvin Kean	4.2	R. J. Cohen	3.1
Gard Griffth	3.5	R. J. Cohen	4.8
Gard Griffith	3.5	Charlie Horton	5.4
Cal. Griffith	3.2	Henry Roth	3.2
Cal. Griffith	4.5	Henry Roth	4.0
J. Klassy	4.0	A Swer	3.5
G. Garwell	3.7	A. Wuepking (soured)	3.5
G. Garwell	4.7	A. Wuepking (soured)	4.6
Dick Thom	3.4		3.4
Dick Thom	4.3		4.5
O'Connor Bros	4.3		4.5 3.5
O'Connor Bros.	3.6	~ ==	4.2
Fritz Kramer	4.8	• • • •	4.2 4.2
J. Klassy	3.4		4.4 5.0
uong	3.4	* MMCL !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	U. U

Wm. Huppenbecken 3.6 Frank Karasek 3.9 Frank Karasek 4.4 Frank Karasek 4.3 Geo. Keyes 3.1 Amos Frey 4.1 Amos Frey 4.0 Bert Dempsey 3.	Per cent. o	of fet	Per cent. o	f fat
Frank Karasek	Wm. Huppenbecken			
Frank Karasck	Frank Karasck			
Geo. Keyes				
Amos Frey				3.4
Robert Reynolds			T	4.0
C. N. Graham 3.2 Will Graser 3.7 Ch. N. Graham 4.6 Jacob Baumgartner 3.3 Chas. Patzner 4.8 David Bohl. bottle broken. W. H. Rose 4.8 Wm. Rudersdorf 3.0 John Zuhr 4.0 John Zuhr 4.0 Frank Baumgartner 5.0 John Zuhr 4.0 John Zuhr 4.0 Frank Baumgartner 4.0 Frank Baumgartner 3.0 John Zuhr 4.4 Frank Baumgartner 3.0 John Zuhr 3.2 John Erder Hunsaker 3.0 John Hunsaker 3.0 John Hunsaker 3.1 J. Herold 3.2 J. A. Spencer 3.2 J. A. Spencer 3.2 Jos. Griswold 3.4 Wm. Pilantikow below standard. Peter Wohlwine 3.8 John Schneider 4.5 Wallace Clark 3.4 John Schneider 4.5 Wm. Born 3.8 Charile Masow 4.6 Griswold 3.6 Knris Meyer 4.6 Gow West 4.0 Knris Meyer 4.6 Gow West 4.0 Knris Meyer 4.6 Gow West 4.0 Sam McReynold 3.6 Sam West 4.0 Will Neudorf 4.4 Isaac Zentner 3.5 John Walters 4.6 Isaac Zentner 4.5 Warren Clark 4.0 Uto Pinnow 4.2 Will Neudorf 4.4 Isaac Zentner 3.5 Aug. Masow 3.4 Davis Bros. 4.7 Aug. Masow 4.0 Robt. Dempsy 4.7 G. Lewis 3.4 Davis Bros. 4.3 Aug. Masow 3.4 Davis Bros. 4.7 Aug. Masow 4.0 Robt. Dempsy 4.7 G. Lewis 3.4 J. R. Butt. 4.0 G. Le	Robert Reynolds	3.8	Bert Dempsey	3.√
C. N. Graham	C. N. Graham	3.2		3.7
Chas. Patzner	C. N. Graham	4.6	Jacob Baumgartner	3.3
W. H. Rose 4.8 Wm. Rudersdorf 3.6 M. P. Smith 4.0 John Zuhr 4.0 John Zuhr 4.0 Frank Baumgartner 5.0 Albert Hunsaker 3.0 Jos. Hinn 3.9 Albert Hunsaker 3.0 Jos. Hinn 3.9 J. A. Spencer 3.2 Jos. Hinn 3.9 J. A. Spencer 3.2 J. Skim milk, trace. J. A. Spencer 3.2 Juda. Jos. Griswold 4.2 Wm. Plantikow below standard. Vallace Clark 3.4 John Schneider 3.6 John Schneider 3.6 John Roheider 4.5 John Schneider 3.6 John Roheider 4.5 John Kohneider 4.5 Wm. Born 3.8 Charile Masow 4.6 Km. Born 3.3 Charlie Masow 4.6 Km. Born 3.3 Chris Meyer 4.6 Km. Born 3.3 Sam McReynold 3.6 Wm. John Walters 4.6 <td>Chas. Patzner</td> <td>4.8</td> <td>David Bohl bottle bi</td> <td>roken.</td>	Chas. Patzner	4.8	David Bohl bottle bi	roken.
M. P. Smith	W. H. Rose	4.8	Wm. Rudersdorf	3.6
John Zuhr	M. P. Smith	4.0	Frank Baumgartner	5.0
John Zuhr	John Zuhr	4.0	Frank Baumgartner	4.0
*Albert Hunsaker 3.0 Albert Hunsaker 3.3 John Albert Hunsaker 3.3 John Albert Hunsaker 3.3 John Albert Hunsaker 3.3 John Albert Hunsaker 3.2 John Albert Hunsaker 3.2 John Albert May 3.2 John May 3.2 Wallace Clark 3.4 John Schneider 3.6 John Schneider 3.6 John Schneider 3.6 John Schneider 3.6 John Crouch 3.4 Wm. Born 3.5 Charlle Masow 4.5 Charlie Masow 4.6 Chris Meyer 3.8 W. S. Newman 4.2 Wm. Born 3.3 Charlle Masow 4.6 Gris Meyer 4.6 Geo. West 4.0 John Walters 4.6 Sam McReynold 3.6 Sam West 4.2 Sam McReynold 4.4 John Walters 4.6 Warren Clark 4.0 Otto Plnnow 3.2 Will Neudorf 4.4 Otto Plnnow 3.2 Will Neudorf 4.4 Otto Plnnow 3.2 John San Wensow 3.1 Mnn Bros. 3.8 Mnn Bros. 3.8 Mnn Bros. 3.8 Mnn Bros. 3.8 Mnn Bros. 4.3 Davis Bros. 3.6 Davis Bros. 4.7 Aug. Masow 3.4 Davis Bros. 3.6 Davis Bros. 3.6 Charlie Coates 4.2 Davis Bros. 3.6 Davis Bros. 3.6 Davis Bros. 3.6 Charlie Coates 4.2 Davis Bros. 3.6 Charlie Coates 4.2 Dunwiddle 3.4 Mnn Bros. 3.6 Davis Bros. 3.6 Charlie Coates 4.2 Dunwiddle 3.4 Mnn Bros. 3.6 Davis Bros. 3.6 Charlie Coates 4.2 Dunwiddle 3.4 Mnn Bros 3.6 Charlie Coates 4.2 Dunwiddle	John Zuhr	4.4	Frank Baumgartner	3.0
Albert Hunsaker	*Albert Hunsaker	3.0		3.9
J. A. Spencer	Albert Hunsaker	3.3	124 Skim milk, trace.	
J. A. Spencer 3.8 Juda John May	J. Herold	3.4	125 Skim milk, trace.	
J. A. Spencer 3.8 Juda John May	J. A. Spencer	3.2		
Jos. Griswold 3.4 Jos. Griswold 4.2 Wallace Clark 3.4 John Schneider 3.6 John Schneider 4.5 John Crouch 3.4 Charlie Masow 4.6 Chris Meyer 3.8 Chris Meyer 3.8 Chris Meyer 4.6 Chris Meyer 3.8 Charlie Masow 4.6 Chris Meyer 4.0 Chris Meyer 4.6 Chris Meyer 4.6 Chris Meyer 4.6 Chris Meyer 4.0 Chris Meyer 4.6 Chris Meyer 4.6 Chris Meyer 4.6 Chris Meyer 4.0 Chris Meyer 4.		3.8	•• <u></u>	
Wallace Clark	John May	3.2	Juaa.	
Solution	Jos. Griswold	3.4	War Directions below store	
Wallace Clark 3.4 C. Lahr 3.6 John Schneider 4.5 John Ronsteig 3.8 John Crouch 3.4 W. S. Newman 4.2 John Crouch 3.4 Wm. Born 3.5 Charlie Masow 4.6 Km. Born 3.3 Charlie Masow 4.6 Fred Cohn 4.0 Chris Meyer 4.6 Geo. West 4.0 Sam McReynold 3.6 Sam West 4.2 Sam McReynold 4.4 Isaac Zentner 3.5 John Valters 4.6 Isaac Zentner 3.5 Will Neudorf 4.4 Isaac Zentner 3.5 Will Neudorf 4.4 Otto Pinnow 3.2 D. S. Barrows 3.1 Minn Bros. 3.8 D. S. Barrows 3.8 Minn Bros. 3.8 Geo. Hunsaker 3.2 Davis Bros. 3.6 Aug. Masow 4.0 E. Dunwiddle 3.4 Robt. Dempsy 4.0 E. Dunwiddle 3.4 <tr< td=""><td>Jos. Griswold</td><td>4.2</td><td></td><td></td></tr<>	Jos. Griswold	4.2		
John Schneider 3.6 John Schneider 4.5 John Crouch 3.4 Charlie Masow 4.3 Charlie Masow 4.6 Chris Meyer 3.8 Chris Meyer 4.6 Sam McReynold 3.6 Sam McReynold 3.6 Sam McReynold 4.4 John Valters 4.6 Warren Clark 4.0 Warren Clark 4.0 Henry Merry 3.2 D. S. Barrows 3.1 Jo. S. Barrows 3.1 Jo. S. Barrows 3.1 Jose Masow 3.4 Aug. Masow 3.4 Aug. Masow 4.0 Aug. Masow 4.0 Robt. Dempsy 4.0 E. Dunwiddle soured. Robt. Dempsy 4.0 L. R. Butt 3.6 J. R. Bradbury 4.7 J. R. Butt 3.6 J. R. Butt 3.6 J. R. Butt 4.0		3.4		
Solit Schiefer 4.5 John Crouch 3.4 Charlie Masow 4.3 Charlie Masow 4.3 Charlie Masow 4.6 Chris Meyer 3.8 Chris Meyer 3.8 Chris Meyer 4.6 Sam McReynold 3.6 Sam McReynold 4.4 John Walters 4.6 Warren Clark 4.0 Walter 4.0 Warren Clark 4.0 Walter 4.1 Will Neudorf 4.2 Henry Merry 3.2 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.1 D. S. Barrows 3.2 D. S. Barrows 3.1 D. S. Barrows 3.1 D. S. Bar				
John Crouch 3.4 Wm. Born 3.5	John Schneider	4.5		
Charlie Masow 4.3 Charlie Masow 4.6 Chris Meyer 3.8 Chris Meyer 4.6 Sam McReynold 3.6 Sam McReynold 4.4 John Walters 4.6 Warren Clark 4.0 Will Neudorf 4.4 Henry Merry 3.2 D. S. Barrows 3.1 D. S. Barrows 3.1 D. S. Barrows 3.8 Minn Bros. 3.8 Geo. Hunsaker 3.2 Aug. Masow 3.4 Aug. Masow 4.0 Robt. Dempsy 4.0 Robt. Dempsy 4.0 Robt. Dempsy 4.0 Robt. Dempsy 4.7 J. B. Bradbury 4.7 J. R. Butt 3.6 J. R. Butt 4.0 G. W. Russell 4.0 Henry Mohns 3.6 G. W. Russell 4.0 Henry Mohns 4.8 G. Lewis 4.4		3.4		
Charlie Masow 4.6 Fred Cohn 4.0 Chris Meyer 3.8 W. J. Newman 4.0 Chris Meyer 4.6 Geo. West 4.0 Sam McReynold 3.6 Sam West 4.2 Sam McReynold 4.4 Isaac Zentner 3.5 John Walters 4.6 Warren Clark 4.0 Otto Pinnow 3.2 Wall Neudorf 4.4 Otto Pinnow 3.2 A.2 Henry Merry 3.2 J. C. Davis 3.8 D. S. Barrows 3.1 Minn Bros. 3.8 Geo. Hunsaker 3.2 Davis Bros. 3.6 Aug. Masow 3.4 Davis Bros. 4.3 Aug. Masow 4.0 E. Dunwiddle 3.4 Robt. Dempsy 4.0 E. Dunwiddle soured. Robt. Dempsy 4.7 O. Stabler 3.6 Theo. Wehrle 4.0 E. Divan 3.0 J. R. Butt 3.6 G. Lewis 4.4 J. R. Butt 3.6	Charlie Masow			
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Chris Meyer 4.6 Geo. West 4.0 Sam McReynold 3.6 Sam West 4.2 Sam McReynold 4.4 Isaac Zentner 3.5 John Walters 4.6 Isaac Zentner 4.5 Warren Clark 4.0 Otto Pinnow 3.2 Will Neudorf 4.4 Otto Pinnow 4.2 Henry Merry 3.2 J. C. Davis 3.8 D. S. Barrows 3.1 Minn Bros 3.8 D. S. Barrows 3.8 Minn Bros 3.8 Geo. Hunsaker 3.2 Davis Bros 4.3 Aug. Masow 4.0 Davis Bros 4.3 Aug. Masow 4.0 E. Dunwiddie 3.4 Robt. Dempsy 4.0 E. Dunwiddie 3.4 John Tenant 3.9 Charlie Coates 4.2 Theo. Wehrle 4.0 E. Divan 3.0 J. R. Butt 3.6 G. Lewis 3.4 J. R. Butt 3.6 Henry Mohns 3.6 <	Chris Meyer	3.8		
Sam McReynold 3.6 Sam West 4.2 Sam McReynold 4.4 Isaac Zentner 3.5 John Walters 4.6 Uarren Clark 4.0 Otto Pinnow 3.2 Will Neudorf 4.4 Otto Pinnow 3.2 Otto Pinnow 4.2 Henry Merry 3.2 J. C. Davis 3.8 D. S. Barrows 3.1 Minn Bros 3.8 D. S. Barrows 3.8 Minn Bros 3.8 Geo. Hunsaker 3.2 Davis Bros 4.3 Aug. Masow 4.0 Davis Bros 4.7 Aug. Masow 4.0 E. Dunwiddie 3.4 Robt. Dempsy 4.0 C. Stabler 3.6 John Tenant 3.9 Charlie Coates 4.2 Theo. Wehrle 4.0 C. Lewis 3.4 J. R. Butt 3.6 G. Lewis 3.4 J. R. Butt 3.6 G. Lewis 4.2 J. R. Butt 3.6 Henry Mohns 3.6 G. W. Russell		4.6		
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John Walters 4.6 Isaac Zentner 4.5 Warren Clark 4.0 Otto Pinnow 3.2 Will Neudorf 4.4 Otto Pinnow 4.2 Henry Merry 3.2 Otto Pinnow 4.2 D. S. Barrows 3.1 Minn Bros. 3.8 D. S. Barrows 3.8 Minn Bros. 3.8 Geo. Hunsaker 3.2 Aug. Masow 4.0 Aug. Masow 4.0 E. Dunwiddie 3.4 Aug. Masow 4.0 E. Dunwiddie soured. Robt. Dempsy 4.0 E. Dunwiddie soured. O. Stabler 3.6 Ostabler 3.6 John Tenant 3.9 Charlle Coates 4.2 Theo. Wehrle 4.0 E. Divan 3.0 J. R. Butt. 3.6 G. Lewis 3.4 J. R. Butt. 3.6 G. Lewis 4.4 J. R. Butt. 4.0 Henry Mohns 4.8 G. W. Russell 4.0 Henry Mohns 4.8	Sam McReynold	4.4		
Warren Clark 4.0 Otto Pinnow 3.2 Will Neudorf 4.4 Otto Pinnow 4.2 Henry Merry 3.2 J. C. Davis 3.8 D. S. Barrows 3.1 Minn Bros. 3.8 D. S. Barrows 3.8 Minn Bros. 3.8 Geo. Hunsaker 3.2 Davis Bros. 4.3 Aug. Masow 4.0 Lourwiddie 3.4 Aug. Masow 4.0 E. Dunwiddie soured. Robt. Dempsy 4.0 E. Dunwiddie soured. Robt. Dempsy 4.7 O. Stabler 3.6 John Tenant 3.9 Charlie Coates 4.2 Theo. Wehrle 4.0 E. Divan 3.0 J. B. Bradbury 4.7 G. Lewis 3.4 J. R. Butt 3.6 G. Lewis 4.4 J. R. Butt 4.0 Henry Mohns 3.6 G. W. Russell 4.0 Henry Mohns 4.8 G. W. Russell 4.0 Henry Mohns 3.4 Andrew Olsen 3.6 Henry Mohns 3.4 An	John Walters	4.6		
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Robt. Dempsy 4.7 O. Stabler 3.6 John Tenant 3.9 Charlie Coates 4.2 Theo. Wehrle 4.0 E. Divan 3.0 J. B. Bradbury 4.7 G. Lewis 3.4 J. R. Butt 3.6 G. Lewis 4.4 J. R. Butt 4.0 Henry Mohns 3.6 G. W. Russell 4.0 Henry Mohns 4.8 G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.6 Wm. Shoen 3.9 Andrew Olsen 3.6 Aug. Pinnow 4.6 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.0		3.4
John Tenant 3.9 Charlie Coates 4.2 Theo. Wehrle 4.0 E. Divan 3.0 J. B. Bradbury 4.7 G. Lewis 3.4 J. R. Butt 3.6 G. Lewis 4.4 J. R. Butt 4.0 Henry Mohns 3.6 G. W. Russell 3.4 Henry Mohns 4.8 G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Jacob Berryman 4.9 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.0	E. Dunwiddiese	oured.
Theo. Wehrle 4.0 E. Divan 3.0 J. B. Bradbury 4.7 G. Lewis 3.4 J. R. Butt 3.6 G. Lewis 4.4 J. R. Butt 4.0 Henry Mohns 3.6 G. W. Russell 4.0 Henry Mohns 4.8 G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 4.7 Mrs. Geo. Lyman 4.0 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.7	O. Stabler	3.6
J. R. Butt. 3.6 J. R. Butt. 3.6 G. W. Russell. 4.0 G. W. Russell. 4.0 Henry Mohns. 3.6 G. W. Russell. 4.0 Philip Burns. 4.1 D. Dunwiddle. 3.4 Andrew Olsen. 3.0 Andrew Olsen. 3.6 Andrew Olsen. 3.6 Wm. Shoen. 3.9 Andrew Olsen. 3.6 Aug. Plnnow. 4.6 Wm. Linten. 4.4 Harvey Barmore. 3.3 Scott Bonham. 3.7 Jake Berndt. 3.4 Jake Berndt. 4.7 Wm. Geo. Lyman. 3.7 Wm. Gerhard. 4.0 Mrs. Geo. Lyman. 4.0		3.9	Charlie Coates	4.2
J. R. Butt. 3.6 G. Lewis 4.4 J. R. Butt. 4.0 Henry Mohns 3.6 G. W. Russell 3.4 Henry Mohns 4.8 G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.0	E. Divan	3.0
J. R. Butt. 4.0 Henry Mohns 3.6 G. W. Russell. 3.4 Henry Mohns 4.8 G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.7	G. Lewis	3.4
G. W. Russell 3.4 Henry Mohns 4.8 G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Jake Berndt 3.4 Jacob Berryman 4.9 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0			G. Lewis	4.4
G. W. Russell 4.0 Philip Burns 4.1 Wm. Mitchell 3.6 D. Dunwiddle 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Plnnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.0	Henry Mohns	3.6
Wm. Mitchell 3.6 D. Dunwiddie 3.4 Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0			Henry Mohns	4.8
Andrew Olsen 3.0 Wm. Shoen 3.9 Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Rerndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		4.0	Philip Burns	4.1
Andrew Olsen 3.6 L. Mackey 3.8 Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0				
Wm. Linten 3.6 Aug. Pinnow 4.6 Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0		3.0	Wm. Shoen	
Wm. Linten 4.4 Harvey Barmore 3.3 Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0				
Scott Bonham 3.7 Harvey Barmore 3.9 Jake Berndt 3.4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm Gerhard 4.0 Mrs. Geo. Lyman 4.0				
Jake Berndt 3,4 Jacob Berryman 4.3 Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm Gerhard 4.0 Mrs. Geo. Lyman 4.0				
Jake Berndt 4.7 Mrs. Geo. Lyman 3.7 Wm Gerhard 4.0 Mrs. Geo. Lyman 4.0			1 -	
Wm. Gerhard 4.0 Mrs. Geo. Lyman 4.0	Jake Berndt			
1. Reckenpulater 3.6 Koot. Montgomery 3.4			1	
	ы вескепримее	5.5	Rout. Montgomery	3.4

Don cont. o		Don cont. o	# # a+
Robt. Montgomery	3.8	B. Brown	3.6
F. Miller	4.3	Lakeside Dairy	3.6
F. Miller	$\frac{4.3}{4.2}$	Lakeside Dairy	3.8
John Swan	3.8	R. A. McCormick	3.4
Tona Swan	0. 0	Fitzsimmons	5.2
		Wm Brush	3.6
Black Creek.		C. W. Nast	4.4
		S. C. Staunchfield	3.6
Louis Duhmbelow sta	ndard	Boland Bros	4.1
Louis Lake	3.6	Boland Bros	.4.4
Louis Lake	4.0	G. S. Radliff	4.4
Geo. Sasman	3.3	S. B. Staunchfield	4.0
Geo. Sasman	4.6	S. C. Staunchfield	4.5
W. H. Randall	4.6	H. Kintzler & Bros	3.4
Fred Wichman	3.5		
Fred Wichman	3.9		
Fred Sasman	4.0	Greenleaf.	
Fred Sasman	4.4	A I Cronk	3.8
Thos. McNich	4.0	A. J. Cronk	5.0
Thos. McNich	4.8	Henry Hespe	4.6
Pat Devlin	3.9	R. P. Russell	4.0
Pat Devlin	4.2	John Krueger	3.7
John Hawthorn	4.6	Herman Maede	4.0
John Hawthorn	3.8	Herman Maede	3.2
Henry Krull	4.6	P. Mass	3.8
Aug. Krull	4.8	Geo. Baeten	3.8
Charlie Michael	3.8	G. Feldt	5.2
Charlie Michael	4.2	Henry Baum	3.9
Charlie Michael	3.5	Henry Baum	4.6
Henry Demand	4.∪	Henry Vanderwort	4.3
Henry Demand	4.8	Henry Vanderwort	4.4
John Sasman	3	Jule Wuerger	3.8
John Sasman	$\begin{array}{c} \textbf{4.5} \\ \textbf{3.5} \end{array}$	Jule Wuerger	4.2
Henry Sasman	4.8	S. Cornell	4.1
Wm. Gammbelow star		l'eter Hahn	4.2
Finley Grandy	3.6	Peter Hahn	4.0
Finley Grandy	5.0	A. Manders	4.2
David Fitzgerald	4.2	A. Manders	4.6
Timothy Magansen	3.1	F. Spitz	4.4
Timothy Magansen	4.2	F. Spitz	4.8
Charley Hause	3.0	Henry Santze	4.1
Jos. Krong	3.0	Henry Santze	4.3
Jos. Krong	4.2	W. Bushmann	4.5
Martin Tlschhauser	4.0	John Bushman	3.4
Martin Tischhauser	4.7	Albert Vanderwiter	3.2
Marke flarty	4.9	Albert Vanderwiter	4.8
Wm. Missling	4.6	B. Day O. Christian	$\frac{3.4}{3.8}$
Wm. Missling	4.4	O. Christian	4.0
Wm. Missling	3.9	John Hespe	4.6
Charlie Gerhard	4.5	C. Chase	4.1
		Aug. Staben	4.1
Fond du Lac City Milk.		Aug. Staben	4.2
2 ona ta mate Cuy min.		Jac. Vandeusen	3. ;
Ogi Bros	3.1	Wm. Spitz	3.6
Diver's Dairy	4.2	Mike Somers	3.9
Diver's Dairy	4.6	Jac. Brittnacher	4.2
R. A. McCormick	4.9	John Brittnacher	4.2
B. Brown	3.1	John Clancy	3.9

Report of the Wisconsin

Per cent. o	f fat	Per cent.	of fat
John Clancy	4.2	John Miller	3.0
Martin Krueger	4.0	John Miller	5.2
Martin Krueger	4.5	Charlie Wenslof	3.5
John Etton	4.1	Fred Muehl	3.6
John Etton	3.8	Fred Muehl	4.4
C. W. Day	4.2	Harry Felio	3.8
C. W. Day	4.1		0.0
A. Gilson	3.6		
A. Ellis	4.3		
		Silver Lake.	
		a =	
_		Chris. Even	3.1
Seymour.		Jake Teny	3.7
4 B		Jas. Rafferty	3.6
A. Doersch	3.6	Herman Kapplehoff	3.6
Aug. Peotter	3.4	Nick Brick	4.4
Aug. Peotter	5.2	Jas. Brook	4.3
John Rusch	3.3	Frank Swartz	3.8
John Rusch	4.5	John Hahn	$\frac{4.0}{3.8}$
H. Flint	3.7	Jas. Welsh	4.6
H. Flint	3.4	Thos. Martin	3.4
H. Flint	4.4	Chas. Kohler	3.8
Aug. Miller	3.4	Peter Stahl	4.0
Aug. Miller	3.4 4.6	Thos. Miller	5.2
Albert Haegle		John Terry	4.8
Wm. Sievert	4.0	G. Vanwye	4.1
Wm. Sievert	3.4	Thos. Hartnell	4.2
Charlie Miller	4.0	Lou Miller	4.3
Charlie Miller	5.0	B. H. Stocker	4.0
Frank Culbertson	3.9	John Engelhardt	4.3
O. Johnson	4.2	Peter Hotz	4.0
Charlie Willis	4.3	C. Miner	4.8
Elisha Thompson	4.4	Charlie Peterson	3.9
Charlie Henkins	4.0	D. Broderick	4.8
Frank Dunst	3.0	P. C. Stahl	·4.1
Frank Dunst	4.7	E. C. Benson	3.8
Gustav Weinke	4.0	Phil Babe	4.2
John Melter	3.4	B. O'Brien	3.9
John Melter	4.0	Jas. Martin	4.0
Fred Hussman	3.0	Albert Miller	3.8
Fred Hussman	3.4	Jos. Smith	4.2
Fred Hussman	4.0	Nick Arnold	3.6
Fred Krancusch	3.0	B. Osweiler	3.9
Fred Krancusch	4.9	Andrew Riggs	$\frac{4.9}{3.7}$
Charlie Krancusch	4.3	A. Gehrand	4.5
Charlie Grazen	3.8	B. Schultz	4.0
Mrs. N. Nessbelow stan Mrs. N. Ness		Matt Hotz	4.7
G. L. Grandy	4.4 3.6	M. DeBell	3.7
Julius Smith	3.6	H. Mooney	4.6
Julius Smith	4.9	Frank Werd	3.8
John Hughes	3.6	Ellis Moulding	4.0
Gustav Hussman	4.4	Matt Bohr	3.8
A. Shepherd	4.0	II. Volkaring	5.1
A. Shepherd	4.4	A. Daniel	3.7
Albert Miller	4.4	Wm. Schultz	3.4
Aug. Wenslof	4.2	F. W. Smith	3.8
F. Laursch	4.2	I. G. Wheeler	4.2
F. Laursch	5.0	Charley Miller	5.0
	- · -		

Juda.	I	Per cent. o	f fat.
Per ct. o	f fat.	Gus. Bartle	4.0
Charlie Coates	4.0	Henry Mayhefer	3.6
Phillips Burns	3.8	Henry Mayhefer	4.7
l'hillips Burns	4.5	Herman Sasse	4.8
Wm. Plantikow	4.1	Herman Sasse	4.0
Ezra Dunwiddie	4.5	Martin Pelvitz	4.0
Ezra Dunwiddie	4.0	Martin Melvitz	4.4
Harvey Barmore	3.8 4.8	Chris Greening	4.4
Harvey Barmore	4.1	Chris Greening	4.2
Mrs. Geo. Lyman	3.8	Mrs. Tena Steinberg	4.3
John Ronspeiz	5.0	Mrs. Tena Steinberg Fred Wohlrabe	3.8
Fred Thom	4.2	Gus Gabarl	4.2
W. S. Newman	4.2	Gus Gabarl	$\frac{3.8}{4.4}$
W. S. Newman	4.5	Gus Kannanburg	4.4
E. P. Mitchell	4.2	Charlie Benke	4.6
E. P. Mitchell	3.4	Domito	4.0
D. T. Dunwiddie	4.0	Seymour.	
Wm. Scholn	3.√	веутоит.	
Wm. Dorn	4.2	T. B. Little	2.0
Wm. Dorn	4.1	Henry Krause	$\frac{3.9}{4.0}$
Otto Pinnow	3.8	Herman Halling	$\frac{4.0}{4.5}$
H. Davis	4.0	Paul Butter	$\frac{4.3}{4.2}$
Lyman Bros	4.3	John Moore	4.8
Davis Bros	4.0	Anton Loahman	5.0
John Swan	4.4	Robert Butter	3.2
John Legler	4.3	John Bloahm	4.0
Peter Wohlwine	3.8	Ed. Powers	3.9
Jas. Stevens	4.0	Wm. Barnetzke	3.9
A. Pinnow	4.5	August Fouster	4.3
L. Mackey	$\frac{4.6}{4.0}$	Levi Munger	4.9
G. Lewis	3.8	Geo. Muehl	3.6
A. E. Divan	4.0	Geo. Muehl	3.8
W. J. Newman	4.6	Albert Kolath	3.8
Henry Mohns	3.4	Albert Kolath	3.9
Henry Mohns	5.6	Louis Metzner	4.2
F. Miller	4.2	Louis Metzner	6.4
Robert Montgomery	3.4	Aug. Sturmbottle b	
Robert Montgomery	4.1	Aug. Sturm	4.4
Oscar Stabler	4.4	F. C. Witt	4.6
Oscar Stabler	3.2	F. C. Witt	$\frac{3.8}{3.6}$
Jacob Berryman	4.2	Ben Leaibheaber	$\frac{3.0}{4.2}$
Geo. West	4.2	Ben Leaibheaber	4.2
Sam. West	3.9	Jake Heigle	4.6
L. Zentner	4.2	Sam Sherman	4.0
L. Zentner	4.5	Geo. Schurmberg	4.0
Tustin.		Geo. Schurmberg	4.8
		Nick Traufler	3.0
Charley Springer	4.0	Nick Traufler	4.4
F. Schairland	4.2	John Moaser	4.6
F. Schairland	4.5	Herman Pantz	4.0
Fred Henschel	4.0	Herman Pantz	3.1
August Jahsman	3.9	Herman Mass	4.3
August Jahsman	5.3	Chas. Smith	4.2
Adam Prelwite	4.1	Chas. Smith	4.0
Adam Prelwitc	4.0	A. Krause	4.3
E. Schuelke	4.2	Aug. Mass	
Gus. Bartle	3.6	Phillip Knickel	4.5

Report of the Wisconsin

Per cent. o	f fat	Dow cont	nd dat
Albert Durkee	4.3	Henry Hintz	OI IAL
Mrs. Anna Dorn	3.2	Jule Else	4.0
Fred Schweizer	5.1	R. Bolse	
Anton Nenise	4.5		
maton remise	4.0	Otto Wagner	
Burnett Junction.		F. Frank	
Durnett bunction,		John Wandersee	
August Luck	4.2	A. Kopp	
		Wm. Kelling	
Wm. Luck	4.2	Charley Moldenhauer	
Theodore Young	3.9	Mrs. W. Grossert	
August Schultz	4.3	Joseph Walters	
Herman Gruetzmacher	3.6	Aug. Gohr	
Carl Pautsch	4.6	Fred Krause	5.0
Carl Pautsch	4.0	Henry Knack	5.5
Wm. Pautsch	3.8	George Seitz	4.1
Wm. Pautsch	4.0	John Pirkle	4.3
Herman Luck	5.0	John Waber	4.4
		John Werner	3.4
Bianchardville.		Charley Schioesser	4.3
		August Kruegger	3.8
Dan McKillip	4.4	John Banker	
Patrick Darragh	4.5	Aug. Baars	
John McKillip	4.2	T. Baars	3.5
Thos. Hanson	4.2	Aug. Bauman	
Wm. Darragh	4.3	Zeitler Bros	
Hans Carlson	4.2	John Rogers	
Jas. McIlhatton	4.6	Charley Schroeder	
		Albert Zeitler	
E. Regez's Factory—Blanchardvi	ile.	F. Brunk	
		Aug. Naatz	
Mike Coffy	4.7	Mug. Haatz	0.0
Tom Durkin	4.2	Binghamton,	
Andrew Dorren	4.6	Dingnamion.	
Jane Rowe	4.1	Albert Huse	4.4
Pat Downey	4.2	Charley Baker	
Mike Brennen	4.5	John Tischauser	
		Charley Benning	
Johnson's Creek.		August Duhm	
•		Wm. Genske	
John Hase	4.0	John F. Hinz	
Albert Schattdthneider	3.9	Geo. Leisgang	
Louis Schumacher	4.0	Geo. Leisgang	
Henry Kottke	3.6	Louis Sasman	
Albert Kruegermilk wa		Fred Korth	
Henry Stiehnn	4.0	John Casey	
Herman Brunk	3.8	John Casey	
Dick Livingston	4.8	Wm. Wehrman	
Gus Stande	4.2	August Schmidt	
Gus Marks	4.3	Charles Wolf	
	3.8	Wm. Riehl	
Wm. Lindstedt			
W. Becker	4.0	Adam Class	
Charley Hamberscheild	4.1	Adam Cloos	
Deidrich Mantz	4.1	Lewis Mailahn	
Jule Nelson	4.6	Mrs. E. Briedenfeld	
Charley Tabbert	5.0	F. Wisthoff	
Gus Rissman	5.0	Lyman Smolk	
Willie Stiehm	4.8	W. Ruwoldt	
Geo. Baars	3.6	Wm. Behl	
John Klauch	5.1	Aug. Roll	
Nohn 用ich	K 1	Wm Canachha	Α Q

Per ct. of	fat. i	Par ct. of	fat.
Henry Lillge	4.4	G. M. Warner	3.9
Louis Breidenfeld	4.2		4.2
John Hoerning	5.0		4.8
Chas. Hoerning	4.2		4.2
Herman Wolf	4.2	John Swain	5.3
Geo. Boser	3.5	J. McNair	4.3
Frank Van Doren	3.4	P. L. Deidrick	4.2
Albert Endtor	4.0	A. Lunde	5.0
Mike Griesbach	4.5	O. Knudson	5.2
James Wing	4.4	O. Dixon	5.2
Aug. Kollath	4.5	Mrs. E. Dixon	4.9
Wm. Rusch	4.0	Henry Hendrickson	4.8
John Eickhoff	4.2	S. Swenson	4.4
Aug. Wehrman	3.2	P. Bye	4.5
Conrad Sellberg	4.3	H. Wendlandt	4.7
B. Griese	3.9	Will Benjamin	4.9
John Kennedy	4.0	W. Springstead	5.4
Mrs. Jacob Scutt	4.2	Henry Benjamin	5.0
Mrs. Jacob Scutt	4.2	S. Sorrensen	5.3
		M. Jackson	4.0
Kenosha.		M. L. Karney	4.0
		B. N. Larson	4.4
Richard Kirch	3.8	G. H. Rosteigen	4.1
Blackman & Sons	3.6	C. Gardner	4.0
J. A. Wells	3.4	Roy Stabler	4.2
J. A. Wells	4.7	David Austin	3.9
J. Bentz	3.6	John Randall	3.9
J. Bentz	4.2	Walter Douglas	4.9
Chas. Hansis	4.8	Robert Stahlnecker	5.0
Piper & Thomas	$\frac{4.3}{5.2}$	Wm. Stabler	4.0
Piper & Thomas	5.2	August Giese	4.3
P. Barth Blackman & Sons	4.2	Manley Douglas	$\frac{4.0}{4.7}$
Thos. Wallis	4.2	Herman Glese	4.1
E. F. Falk	3.8	John Stahlnecker	4.7
E. A. Jensen	4.2	M. L. Karney	4.0
John Hartung	4.1	Skim milk, Sept., No. 2	0.02
A. Sorenson	4.9	Skim milk, Sept., No. 1	0.03
T. J. Irwin	4.2	Saint mila, septi, ito it	0.00
L. H. French	5.0		
A. Terry	3.6	Union Grove.	
Phil. Johannis	4.8		
		H. Olson	4.2
Juneau.		P. Larson	3.3
•		G. Hardy	4.2
Aug. Ladwig	4.5	H. C. Hanson	4.2
Louis Rupke	4.8	Mrs. J. Milldrum	4.2
Aug. Swenzow	4.6	Frank Adams	3.7
Henry Heihert	4.1	H. Rosendale	3.6
Aug. Affald	5.0	P. DeGroot	4.0
Herman Badle	4.6	J. Meekma	8.5
Albert Swanz	5.4	C. DeGroot	3.8
Julius Kepsol	4.5	J. DeGroot	3.7
Chas. Tena	5.2	H. Swantz	3.5 3.1
		O. Esmond	4.0
Brodhead.		l i	3.6
L. O. Knudson	4.5	John Dextra	3.9
L. I. Fairman	5.0	E. Barrows	4.0
Leslie Fairman	5.1	C. Motley	8.5
		I GI TAVETCO TITI	

Per ct. o	of fat.	Per ct. o	of fat.
F. Kiddle	3.8	Will Miller	4.1
P. Hanson	4.2	Henry Neip	4.0
J. Martin	3.8	J. S. Whitmore	4.0
A. Minton	4.4		
W. Roberts	4.0	Green Bay.	
J. Zulauf	3.5		
P. Maurice	3.7	August Glese	4.0
II. Monroe	3.4	W. Wilson	3.7
F. Swantz	3.7	W. Wilson	3.5
		M. McGuire	3.8
Elkhorn.		H. Armstrong	4.4
	• •	N. Anderson	4.3
J. H. Zigg	3.8	H. Williamson	4.2
F. W. Houghton	4.3	II. E. Wilson	4.2
O. Pratt	3.7	N. Anderson	4.5
O. Vaughn	4.4	J. Mickelson	4.0
Haslow & Co	$\begin{array}{c} 4.3 \\ 5.2 \end{array}$	H. J. Kuehl	3.8
Mark Foot	-	J. Lan & Sons	4.0
E. Merick	$\frac{3.5}{4.2}$	Henry Vandenheuvuel	4.1
Ed. Weiners	4.2		
Frank Humbert	3.8	. Eau Claire.	
Belle & Co	4.2.		
Tom Decoudres		L. Tower	3.6
L. Humbert	3.5	J. C. Barland	3.8
George Vaughn	3.9	Amos Goff	3.0
George Camer	4.0 3.8	J. Johnson	3.6
Nick Camer		Phillip Fitzpatrick	3.5
Will Paulsen	4.1 4.4	C. H. Johnson	3.3
J. Brierly	4.4	B. R. Barland	4.6
A. Paulson		Geo. D. Wood	4.1
C. H. Phelps	4.1	S. M. Olin	3.4
Wm. Mitchell		Samuel Guthrie	4.4
Wm. Blout	$\frac{4.6}{3.8}$	S. R. Dunham	3.7
H. Vaughn	3.6	D. Neuser	4.1
George Fratt	3.4	0	
Merrick & Co	4.1	Oconomowoc.	
A. S. Wortman	4.1	E S Stone	
W. I. Loomis	3.2	E. S. Stone	3.8
Tom Matson	4.3	W. S. Bibble	$3.8 \\ 3.6$
Paulsen, Sr	4.0	W. M. Jones	4.1
Mayhew & Co	3.6	Isaac Denton	4.0
Wm. Falk	4.2	Fred Fidler	4.2
Forge & Son	4.1	E. W. Barnard	3.5
Fred Zabler	3.0	Bartlett Estate	4.2
G. Merrick	3.6	P. Henricson	4.2
Wm. Zabler	4.0	Gus Voght	3.8
Frank Miller	4.4	N. M. Hill	4.0
Wm. Vaughn	4.8	A. Stone	4.4
Frank Patton	3.8	W. A. Jones	3.7
A. Clark	4.0	W. E. Bailey	3.5
P. Nelson	4.6	Frank Rohloff	4.5
Charley Meyers	4.1	O. P. Chubb	4.0
George Williams	3.7		-
Chas. Kadow	4.7	Cambria.	
J. C. Greenman	4.3		
Joseph Forge	3.3	John Shepp	3.5
E. Whitmore	4.2	Charlie Martin	3.3
Bert Whitmore	4.8	Gust. Schatz	3.6
Beick Bros, .,	4.6	Henry Richter	3.8

Per ct. of fa	Per ct. of fat.
Henry Huffman 3.5	J. Splettstoeser 3.0
Herman Lueptow 3.7	Aug. Sydow 3.5
Conrad Weisel 3.3	F. Thornticke 3.2
John Bender 3.8	Ed. Frank 3.1
Chris. Umbreit 3.5	Otto Sydow 3.3
Philip Probst 3.6	C. F. Reese 3.3
August Schatz 3.8	John Rees 3.2
Peter Kumba 3.5	John Reese 3.9
Godfrey Winne 3.4	Mrs. F. Bartelt 4.2
Casper Weisel 4.0	F. Keipert 3.0
L. H. Koepp 3.8	E. Staude 3.6
Jacob Heinz 3.9	T. Knaack 3.8
John Lipthite 3.8	H. Rhadams 3.6
Charlie Schatz 4.0	H. Rhadams 4.0
Conrad Shepp 4.4	H. Rhaabe 3.5
	H. Vogt 3.8
Palmyra.	R. Wolff 3.6
	C. Heine 3.4
Robert Charley 4.0	John Mohr 4.3
Geo. Mann 3.3	John Schlasner 4.0
Charley Perry 4.3	Charley Buke 3.7
Henry Buths 3.5	H. Jahnke 3.8
Henry Buths 3.4	John Wolfgram 3.3
Thos. Hitch 3.3	John Wolfgram 4.2
Ed. Hooper 3.6	Fred Reibe 4.0
Ed. Peardon3.6	Geo. Keoppel 3.0
Ed. Peardon 3.9	Aug. Grunert 3.6
M. Piper 3.5	W. Pautz 3.2
John Stacy 4.0	Herman Kiepert 3.7
W. Gilbert 4.4	G. Kothlow 3.8
F. Rodgers 3.1	W. Zindars 3.7
F. Vonruedonbelow standard	
John Stacy 4.2	Aug. Tilka 3.8
J. French 3.9	E. Voss 3.6
W. P. Gates 3.6	Mrs. N. Nutting 3.8
W. Pluis 3.9	C. N. Nutting 3.9
W. Pluis 3.9	Mike Dehnest 3.4
W. Burton 4.3	Louis Wolfgram 3.8
J. Lean 4.4	Aug. Doremarde
G. Spaulding 4.1	W. B. Mathews
W. Richardson 3.8 R. H. Turner below standar	Mis. Borchardt
	Charley Dorchards
R. H. Turner	John Heine
J. Stinhoff 3.6	W. Dorchardt
Skimmed milk, small trace of butte	Thos. I chy
fat, not to exceed one-tenth of one pe	C. I. Benute
cent.	sample of skimmed milk taken, not to ex-
cent.	ceed one-tenth of one per cent.
Johnson's Creek.	Coca one tenta or one per sons
3 333 W G 7 00W.	
F. Ruske 3.2	Red Rock.
Chas. Barmann 3.8	
Jim Schlasner 3.8	John Kil Kellybelow standard.
W. Patratz 3.6	J. T. Morgan 3.3
H. Buske 3.9	Wm. Wilson 3.5
C. Dunning 3.6	John Wilson 3.6
Mrs. W. Buske 4.2	Frank Steel 3.4
Adam Ridelbauch 3.5	J. McGettigan 3.8
F. Schumacher 3.1	Jas. Sanders 4.0

Per ct. of	fat.	Per ct. o	f fat.
	3.4	J. Gleighman	3.8
R. M. Thompson 3	3.5	E. Hensey	3.4
Sample of skimmed milk conta	ined	H. Zeddies	3.2
two-tenths of 1 per cent.		A. Zastrow	4.3
	- 1	If. Krohn, Sr	3.6
	1	D. Higbie	3.6
Juneau.	- 1	Frank Newton	3.3
	- 1	Mrs. Rora Mistely	3.3
Henry Rueger §	3.8 l	J. Trader	3.9
*	3.6	W. Yaugert	3.7
	3.8	G. Bentria	3.6
	3.5	D. Marsch	3.3
		H. Grobb	sour.
	3.9		
	3.6	Fred Lee	3.9
	3.3	A. Halbrader	4.0
•	3.4	H. Will, Sr	3.8
	3.9	T. Burrow	sour.
	3.5	F. Raiser	3.5
	2.9	Pat Garity	4.3
	3.2	Thos. Scollard	sour.
	3.6		
	±.0 ↓		
	3.3	Orfordville.	
Chas. Thieme, Sr	3.2		
	3.3	8. B. Gilbert	3.7
	3.4	John Richmond	4.1
		H. Vinger	3.6
		Peter Foss	3.9
Sullivan,		II. Anderson	4.2
	ı	Geo. Olson	3.7
J. Hinzmann	3.5 l	Nels Larson	3.5
	4.2	Ole Storlie	3.9
	3.4	Chris. Paulson	3.3
	3.6	Andrew Shirley	3.1
	3.6 3.6	Ole Staverdahl	3.4
		Andrew Sveom	3.4
	4.3	Hans Gilbert	3.9
	3.9	Mrs. T. E. Myhre	0.0
	3.7		2 0
	~ = I	<u> </u>	3.9
TT 337111 T	3.7	Jas. Ward	4.0
	3.2	Jas. Ward	4.0 3.9
W. Myer	3.2 3.5	Jas. Ward	4.0
W. Myer W. Graeszel	3.2 3.5 3.7	Jas. Ward	4.0 3.9
W. Myer W. Graeszel G. Rummel	3.2 3.5 3.7 4.0	Jas. Ward	4.0 3.9
W. Myer W. Graeszel G. Rummel C. Wenner	3.2 3.5 3.7 4.0 3.5	Jas. Ward	4.0 3.9
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol	3.2 3.5 3.7 4.0 3.5 3.8	Jas. Ward	4.0 3.9 4.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton	3.2 3.5 3.7 4.0 3.5	Jas. Ward H. Overlande G. T. Hanson Cambridge.	4.0 3.9 4.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm	4.0 3.9 4.3 3.8 3.5
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger	3.2 3.5 3.7 4.0 3.5 3.8 4.2	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem	4.0 3.9 4.3 3.8 3.5 4.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neltmann	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf	3.9 4.3 3.8 3.5 4.3 3.7
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neltmann	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem	4.0 3.9 4.3 3.8 3.5 4.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neltmann A. C. Ecker S. Lee	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson	4.0 3.9 4.3 3.8 3.5 4.3 3.7 4.3 3.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neltmann A. C. Ecker S. Lee	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour.	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke	3.9 4.3 3.8 3.5 4.3 3.7 4.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neitmann A. C. Ecker S. Lee A. Notboum	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson	4.0 3.9 4.3 3.8 3.5 4.3 3.7 4.3 3.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neitmann A. C. Ecker S. Lee A. Notboum Geo. L. Garity	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson O. C. Larson	4.0 3.9 4.3 3.8 3.5 4.3 3.7 4.3 3.3
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neitmann A. C. Ecker S. Lee A. Notboum Geo. L. Garity Humboldt Bros.	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8 3.3	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson O. C. Larson W. Pofflow	3.8 3.5 4.3 3.7 4.3 3.7 4.4
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neltmann A. C. Ecker S. Lee A. Notboum Geo. L. Garlty Humboldt Bros. H. Wenzel	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8 4.3 3.3	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson O. C. Larson W. Pofflow F. Lewis	3.8 3.5 4.3 3.7 4.3 3.7 4.4 4.4
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neitmann A. C. Ecker S. Lee A. Notboum Geo. L. Garity Humboldt Bros. H. Wenzel F. Wenzel	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8 4.3 3.3	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson O. C. Larson W. Pofflow F. Lewis C. Becker John Nettum	4.0 3.9 4.3 3.8 3.5 4.3 3.7 4.4 4.4 3.9
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neitmann A. C. Ecker S. Lee A. Notboum Geo. L. Garity Humboldt Bros. H. Wenzel F. Wenzel Wm. Tohn	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8 4.3 3.8 3.7	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson O. C. Larson W. Pofflow F. Lewis C. Becker	4.0 3.9 4.3 3.8 3.5 4.3 3.7 4.4 4.4 3.9 4.2
W. Myer W. Graeszel G. Rummel C. Wenner J. Carrol H. Newton W. Krueger W. Lee Gus Neitmann A. C. Ecker S. Lee A. Notboum Geo. L. Garlty Humboldt Bros. H. Wenzel F. Wenzel Wm. Tohn H. Kitzmann	3.2 3.5 3.7 4.0 3.5 3.8 4.2 3.9 4.2 3.8 sour. 3.8 3.3 3.7 4.3	Jas. Ward H. Overlande G. T. Hanson Cambridge. John Davis E. H. Behm C. Birkrem Otto Rumpf A. Eshke A. G. Johnson O. C. Larson W. Pofflow F. Lewis C. Becker John Nettum R. Shmidt	4.0 3.9 4.3 3.8 3.5 4.3 3.7 4.3 3.7 4.4 4.4 4.9 4.2 3.7

Dairy and	l Foo	d Commissioner.	131
Per ct.	of iat.	. Verona.	
C. Lespewske	3.6	Per ct. o	
M. Ramsey	3.7	Mrs. Mary Messerbelow star	ıdard.
H. J. West	4.4	Lewis Kittleson	4.7
John Geerke	3.9	Knudt Boa	4.0
E. Jeager	4.3	W. Lust	4.2
H. B. Prescott	3.7	John Kittleson	4.2
C. Simdon	3.5	John Way	3.8
W. Simdon	3.9	Karl Kolb	4.2
A. Ottow	3.8	Albert Herring	3.4
Geo. Green	3.7	Sam Wittwer	3.4
Geo. Armstrong	4.1	Herman Hankel	4.3
A. Plum	4.0	Mike Hobbs	4.5
A. Surms	4.3	Martin Hobbs	4.0
M. Anderson	4.3	Henry Regge	4.1
C. M. Larson	4.1		
Peter Larson	3.5		
Betsy Anderson	3.5	Tustin.	
G. C. Larson	4.5		
O. Asje	4.2	Fred Gruening	2.5
O. Askin	3.7	Fred Gruening	3.9
Matt Larson	4.2	Wm. Klotsbicker	2.6
J. B. Lind	4.1	Wm. Klotsbicker	3,4
Gus. Retzlof	3.8		
T. Gehrke	4.0		
→ W. Krause	3.7	West Bend.	
A. Drager	4.0	_ ~	
Mrs. Ole Fjhelstad	4.0	F. Schneider	$3.2 \\ 4.2$
Sam Brounty	4.0	F. Schneider	3.0
Pet Swanson	3.7	Geo. McCormack	3.5
		Geo. McCormack	3.9
Tustin.		M. J. Morawetz	3.5
	. 0	M. J. Morawetz	$\frac{3.5}{4.0}$
Robert Winter	3.8	M. J. Morawetz M. J. Morawetz Nick Bales	3.5 4.0 3.6
Robert Winter	3.5	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber	3.5 4.0 3.6 3.4
Robert Winter	$\frac{3.5}{3.8}$	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber	3.5 4.0 3.6 3.4 4.2
Robert Winter	3.5 3.8 3.5	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet	3.5 4.0 3.6 3.4 4.2 4.0
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield	3.5 3.8 3.5 3.5	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber	3.5 4.0 3.6 3.4 4.2 4.0 4.0
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel	3.5 3.8 3.5 3.5 3.2	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill	3.5 4.0 3.6 3.4 4.2 4.0 4.0
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel	3.5 3.8 3.5 3.5 3.2 4.0	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin	3.5 3.8 3.5 3.5 3.2 4.0 3.6	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell	3.5 4.0 3.6 3.4 4.2 4.0 4.0 3.7
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin	3.5 3.8 3.5 3.5 3.2 4.0 3.6 3.8	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf	3.5 3.8 3.5 3.5 3.2 4.0 3.6 3.8 3.0	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf	3.5 3.8 3.5 3.5 3.2 4.0 3.6 3.8 3.0	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell John Krell Don Cameron E. M. Nash A. Debeno	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3 4.0 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening	3.5 3.8 3.5 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger	3.5 3.8 3.5 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell John Krell Don Cameron E. M. Nash A. Debeno	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3 4.0 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3 4.0 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1 4.2	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno Madison.	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3 4.0 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno	3.5 4.0 3.6 3.4 4.2 4.0 4.0 4.0 3.7 4.0 3.3 4.0 3.8 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter	3.5 3.8 3.5 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1 4.2 3.8 3.3	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl	3.5 4.0 3.6 3.4 4.2 4.0 4.0 3.7 4.0 3.8 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke Geo. Kopitzke	3.5 3.8 3.5 3.5 3.6 3.6 3.8 3.0 4.1 3.3 3.1 4.2 3.8 3.3	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl David Martin	3.5 4.0 3.6 3.4 4.2 4.0 4.0 3.7 4.0 3.3 4.0 3.8 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke Geo. Kopitzke	3.5 3.8 3.5 3.5 3.6 3.6 3.8 3.0 4.1 3.3 3.1 4.2 3.8 3.3	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl David Martin Will Krueger	3.5 4.0 3.6 3.4 4.0 4.0 4.0 3.7 4.0 3.8 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke Geo. Kopitzke Gotlieb Socheska Gotlieb Socheska	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1 4.2 3.8 3.7 3.4	M. J. Morawetz M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl David Martin Will Krueger Delos Wells	3.5 4.0 3.6 3.4 4.2 4.0 4.0 3.7 4.0 3.3 4.0 3.8 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke Geo. Kopitzke Gotlieb Socheska Gotlieb Socheska Wm. Mundenger	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.0 4.1 3.3 3.1 4.2 3.8 3.3 3.7 3.4	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl David Martin Will Krueger Delos Wells Jacob Long	3.5 4.0 3.6 4.2 4.0 4.0 4.0 3.7 4.0 3.8 3.8 3.7 3.8 4.0 3.4
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke Geo. Kopitzke Gotlieb Socheska Gotlieb Socheska Wm. Mundenger Wm. Mundenger	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.1 4.1 3.3 3.1 4.2 3.8 3.3 3.7 3.4 4.0	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl David Martin Will Krueger Delos Wells Jacob Long James Blaine	3.5 4.0 3.6 3.4 4.0 4.0 4.0 3.7 4.0 3.8 3.8 3.8 3.7 3.8 3.8
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Robt. Winter Geo. Kopitzke Goo. Kopitzke Gotlieb Socheska Gotlieb Socheska Wm. Mundenger	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.1 4.2 3.8 3.7 3.4 4.0 3.9 4.6 3.2	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell Don Cameron E. M. Nash A. Debeno A. Debeno Madison. Karl Stahl David Martin Will Krueger Delos Wells Jacob Long James Blaine Jeremiah Caton C. Bayerhoffer W. Rosenthal	3.5 4.0 3.6 4.2 4.0 4.0 3.7 3.8 4.0 3.8 3.8 4.0 3.8 3.7 3.7 3.8 4.0 3.7 3.8 4.0 3.7 3.8 4.0 3.8 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0
Robert Winter Wm. Winter Henry Teska John Hartfield John Hartfield Ed. Zempel Ed. Zempel Gus Berlin Gus Berlin Wm. Folendorf Wm. Folendorf Wm. Gruening Fred Mundinger Fred Mundinger Fred Mundinger Geo. Kopitzke Geo. Kopitzke Gotlieb Socheska Gotlieb Socheska Wm. Mundenger Wm. Mundenger Albert Radichel Albert Radichel Aug. Abraham Aug. Abraham	3.5 3.8 3.5 3.2 4.0 3.6 3.8 3.1 4.2 3.8 3.7 3.4 4.0 3.9 4.6 3.2 4.5	M. J. Morawetz M. J. Morawetz Nick Bales Chas. Gomber Chas. Gomber Geo. Arnet B. W. Barber Henry Thill John Krell John Krell John Krell Don Cameron E. M. Nash A. Debeno Madison. Karl Stahl David Martin Will Krueger Delos Wells Jacob Long James Blaine Jeremiah Caton C. Bayerhoffer	3.5 4.0 3.6 4.2 4.0 4.0 3.7 3.8 3.8 3.7 3.7 3.8 3.4 3.4 3.5 4.0 3.6 4.0 3.7 3.8 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 3.6 4.0 4.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5
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Waynyn		Per ct. o	f fat.
Waupun. Per ct. of	fat	Arthur Davis	4.7
	3.2	John Fritch	4.0
	3.8	E. Grenzow	4.7
	3.0	Will Pick	4.1
••	4.0	Will Guinter	4.2
	3.5	Jos. Miller	4.1
F. Chase	3.5		
F. Chase	4.3	Ripon.	
W. Gallon	3.2		
W. Gallon	4.3	1. Herman Thiel	3.0
	3.4	2. Herman Thiel	2.65
Geo. Lang	4.0	·	
accora_g	4.7		
	3.0	Mt. Horeb.	
	4.3	w. , w .1	
F. Blockbelow stand		Peter Husath	4.0
F. Blockbelow stand		Sever Veum	3.6
O. Wustrack		II. A. Husath Henry Ottum	$\frac{3.8}{3.7}$
	4.8 3.7	Hans Haakenass	4.0
	3.5	H. Grannum (spec. grav. 1.030).	3.2
	4.6	T. Peterson	3.4
g	3.2	Michael Johnson	3.4
	3.8	Tarender Common IIII	0
	3.8		
90	3.6	Monroe.	
E. Ringenfelterbelow stand			
	3.4	A. Kryder	3.3
•		John Alexander	3.8
Aurora.		Geo. Davis	3.7
		Fraustchy Bros	4.0
Jos. Boden	3.9	Jos. Mattress	3.8
Peter Boden	3.4	J. Hofmaister	3.5
	4.1	H. L. Davis	3.5
	3.2	S. Bradley	3.5
Henry Dellenbachbelow stand		Geo. Williams	4.1
	3.9	W. H. Zimmerman	3.2
	4.5	Ben Davis	3.7
	4.5	Nick White	3.2
	4.5	Jos. Bradley	3.7
-	3.7 3.8	Eli Shook	$3.6 \\ 3.1$
	3.7	John Kryder	3.7
	4.8	Charlie Kryder	3.6
	4.0		5.0
	3.8	1 1 1 -	
	3.7	Monroe.	
	3.6		
Chas. Beckerbelow stand	dard.	Eddle Brannen	3.4
	3.6	John Winters	3.8
		H. W. True	3.1
Polk.		Chris Winters	3.7
,	`	Chris Bush	4.4
	4.2	Frank Brannen	3.8
	4.1	Charlie Winters	3.4
	3.9	Frank Van Matra	8.5
	5.1	J. Dornedan	4.0
	4.6	R. D. Blubaugh	3.8
	4.6	John D. Brannen	3.3
Herman Mauerman	3.7	L. Ganshirt	3.5

Brodhead.		Per ct. o	of fat.
Per ct. o	of fat.	John Heiden	3.2
Andrew Laube	4.2	Fred Miller	3.4
Frank Mitchell	4.0	Fred Miller	4.8
Will Evans	4.4	Mary Broetzman	3.4
W. H. Mann	4.1	Mary Broetzman	3.6
Leroy McKinley	3.2	Herman Schaeffer	3.6
Joan Keaster	4.0	Otto Dettemanwa	tered.
Orrin Clark	4.1	Wm. Troleff	3.6
Geo. Zimmermann	3.5	Chas. Miller	3.8
Aug. Kohn	4.0	Chas. Miller	4.4
Frank Green	4.2	Fred Richerdtbelow star	ndard.
•		Fred Richerdt	4.4
•		Chas. Schultz	4.0
Lake Mills.		H. D. Spitzer	3.6
		Chas. Wollin	3.5
Christ. Wollin	3.2	Chas. Wollin	4.2
Christ. Wollin	5.0	Lu Hornickel	3.8
Robt. Wollin	4.2	Fred Schmidt	3.8
Ed. Roehlwa	tered.	Fred Schmidt	4.4
A. Rughardt	4.4	Albert Menzel	3.8
Albert Schneider	3.7	C. E. Gallup	4.0
John Bohnsack	4.0	C. A. Gallup	4.4
A. Brodow	3.6	-	
A. Brodow	4.5	Juda.	
Frank Woolitz	4.0		
Wm. Yandre	3.8	Geo. Nix	4.2
Chris Heitz	3.6	D. Vance	4.5
Henry Miller	3.6	Fred Miller	4.1
Henry Miller	4.3	H. Barmore	J., 7
F. Kuger	3.9	W. W. Baird	4.5
F. Kuger	5.2	Phillip Burns	4.2
Aug. Hein	3.1	Geo. Hemstreet	4.3
Aug. Heln	4.6	A. Keller	3.9
Fred Heller	3.8	W. M. Kafer	4.4
Fred Heller	4.6	T. Barmore	3.7

REPORT OF DAIRY INSPECTOR, I. FIELD.

- Fred Leichtfass, 36th and Fond du Lac Sts., Wauwatosa; number of cows, 2; condition of stock, good; stables, fairly clean; feed, bran, middings and hay; well water. Inspected June 11th, 1897.
- Herman Becker, 37th and Fond du Lac Sts., Wauwatosa; number of cows, 3; stables and utensils, clean; feed, middlings, bran, hay and brewery grains; well water. Inspected June 11th, 1897.
- J. F. Painter, Fond du Lac Road, Milwaukee; number of cows, 27; condition of stock, first class; stables, clean and well ventilated; utensils, clean; feed, brewers' grains, middlings and clover hay; well water. This is a first-class dairy. Inspected June 12th, 1897.
- Conrad Paster, South City Limits, Milwaukee; number of cows, 65; condition of stock, good; stables, clean; utensils, clean; feed, corn meal, brewery grains and middlings; well and city water. Inspected June 14th, 1897.
- Frank Freutz, Newcomb Road, Toll Gate, Milwaukee; number of cows, 14; condition of stock, good; stables, not clean; utensils, fairly clean; feed, middlings and bran; well water. Inspected June 14, 1897.
- J. W. Becker, Cudahy; number of cows, 19; condition of stock, good; stables, clean; utensils, clean; feed, pasture grass; well water. Inspected June 14. 1897
- Albert Meesick, near Sercomb Roard, Milwaukee; number of cows, 4; condition of stock, good; stables, not clean; utensils, clean; well water. Inspected June 14, 1897.
- John Wooster, Layton Park, Milwaukee; number of cows, 3; condition of stock, good; condition of stables, good; utensils, clean; feed, bran, middlings and pasture grass; well water. Inspected June 14, 1897.
- Chris Guenther, Greenfield; number of cows, 13; condition of stock, good; stables, clean; utensils, clean; feed, bran, middlings and pasture grass; well water. Inspected June 14, 1897.
- W. C. Freutz, Toll Gate Road, Milwaukee; number of cows, 17; condition of stock, good; stables, clean; utensils, clean and bright; feed, bran, middlings and pasture grass; well-water. Inspected June 14, 1897.
- Nicolas Schmidt, 2713 Walnut St., Milwaukee; number of cows, 7; condition of stock, ————; stables, in fairly good condition; utensils, clean; feed, middlings, brewery grains, linseed meal and hay; well water. Inspected June 16, 1897.
- Gustav Kaun, 37th and Fond du Lac Sts., Milwaukee; number of cows, 6; condition of stock, good; stables, well kept; utensils, clean; feed, brewery grains, middlings and hay; well water. Inspected June 11, 1897.
- Hadler & Webster, Greenfield; number of cows, 36; condition of stock, good; stables, in excellent condition; utensils, clean; feed, middlings, bran and corn meal; well water. Inspected June 11, 1897.
- Chas. Dana, Greenfield; number of cows, 39; condition of stock, excellent; stables, very clean; utensils, clean; feed, corn stalks, corn meal, brewery grain; well water. Inspected June 11, 1897.
- Jac. Meyer, Fond du Lac Road, Milwaukee; number of cows, 12; condition of stock, clean and healthy; stables, clean; utensils, clean; feed, middlings, brewers' grain and pasture grass; well water. Inspected June 12, 1897.

- Albert Court, Toll Gate Road; number of cows, 23; stables in filthy condition; feed, middlings, brewers' grains, badly fermented, and pasture grass.
- Fred Nepo, Sercomb Road; number of cows, 5; condition of stock, good; stables, fair; utensils, clean; feed, pasture; spring water. Inspected July 12, 1897.
- Herman F. Luscher, Hopkins Road; number of cows, 24; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, bran and pasture; well water. Inspected July 12, 1897.
- F. A. Zautke, County Road; number of cows, 44; condition of stock, good; stables, clean; utensils, clean; feed, clover grass and ensilage; well water. A most excellently kept establishment. Inspected July 13, 1897.
- I. Keller, Hopkins Road; number of cows, 24; condition of stock, good; stables, clean; utensils, clean; feed, middlings, bran and hay, pasture; well water. Inspected July 13, 1897.
- N. Smith & Co., Oakland Ave.; number of cows, 36; condition of stock, good; stables, clean; utensils, clean; well water. Nursing milk establishment; excellent. Inspected July 14, 1897.
- Otto Ianhuke, Mineral Spring Crossing; number of cows, 18; condition of stock, good; stables, fair; utensils, not clean; feed, pasture; well water. Milk not kept in clean places; warned to clean up; will visit again. Inspected July 14, 1897.
- Julius Lockstead, White Fish Bay Road; number of cows, 3; condition of stock, good; stables, good; utensils, clean; feed, bran, middlings and pasture; well water. Inspected July 14, 1897.
- Chas. Lochstead, Oakland Ave.; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, bran, middlings and pasture; well water. Inspected July 14, 1897.
- Wm. Grenhardt, 29th St. and Lincoln Ave.; number of cows, 22; condition of stock, good; stables, clean; utensils, clean; feed, vinegar slops, middlings and pasture; well water. Requested discontinuance of vinegar slops. Inspected July 15, 1897.
- Wm. Finger, Holley Road; number of cows, 30; condition of stock, good; stables, good; utensils, clean; feed, brewers' grains, middlings and pasture; well water. Excellent dairy. Inspected July 15, 1897.
- Gottleb Pasbut, Lincoln Av., Wauwatosa; number of cows, 16; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains; well water. Inspected July 15, 1897.
- II. Rahn, Holley Road; number of cows, 7; condition of stock, good; stables, good; utensils, clean; feed, brewers' grains, cornmeal and pasture; well water. Inspected July 15, 1897.
- Edward Harmon, Lake Road, Wauwatosa; number of cows, 28; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Gustave Cohhardt, Wauwatosa; number of cows, 10; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Herman Daunenberg, Burleigh Road; number of cows, 16; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Ferdinand Schultz, Burleigh Road; number of cows, 23; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Fred Becker, Burleigh Road; number of cows, 9; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Gustave Kann, Burleigh Road; number of cows, 11; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Peter Bonerz, Lisbon Road, Wauwatosa; number of cows, 15; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 20, 1897.



- Albert Sieverts, North Avenue Road, Wauwatosa; number of cows, 12; condition of stock, good; stables, crean; utensiis, crean; feed, pasture; well water. Inspected July 20, 1897.
- Wm. Dubratz, North Avenue Road, Wauwatosa; number of cows, 16; condition of stock, good; stables, good; utensiis, clean; feed, pasture; well water. Inspected July 20, 1897.
- Frank H. Nichols, Vilet Street Road, Wauwatosa; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 20, 1897.
- Adolph Siedo, North Avenue Road, Wauwatosa; number of cows, 8; condition of stock, good; stables, clean; utensiis, clean; feed, pasture; well water. Inspected July 20, 1897.
- John Hupher, 44th Street, West Wauwatosa; number of cows, 8; condition of stock, good; stables, clean; utensils, clean; feed, corn meal, middlings, brewers' grains and pasture; well water. Inspected July 20, 1897.
- Fred Schrub, Watertown Plank Road, Wauwatosa; number of cows, 40; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 21, 1897.
- Andrew Slotpman, Second Avenue Road, Town Lake; number of cows, 7; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains; well water. Inspected July 23, 1897.
- John Miller, 8th Avenue Road, Town Lake; number of cows, 9; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, some vinegar slops and corn meal; well water. Requested discontinuance of vinegar slops. Inspected July 23, 1897.
- Adolph Gritner, 8th Avenue Road, Town Lake; number of cows, 35; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, middlings, bran and pasture; well water. Excellent dairy. Inspected July 23, 1897.
- John Prozy, 5th Ave., Town Lake; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 23, 1897.
- Wm. Froeming, 8th Ave., Town Lake; number of cows, 14; condition of stock, good; stables, clean; utensils, clean; feed, brewers grains and pasture; well water. Inspected July 23, 1897.
- William Kilps, 11th Ave., Town Lake; number of cows, 3; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 23, 1897.
- Winston Brand, 11th Ave., Town Lake; number of cows, 23; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, vinegar slops, half and half; wel water. Requested discontinuance of vinegar slops. Inspected July 23, 1897.
- M. Malecki, 11th Ave., Town Lake; number of cows, 6; condition of stock, good: stables, clean; utensils, clean; feed, brewers' grains, vinegar slops, corn meal and pasture; well water. Requested discontinuance of vinegar slops. Inspected July 23, 1897.
- Frank A. Zoebel, Lake Road, Cudahy; number of cows, 3; condition of stock, good; stables, clean; utensils, clean; feed, bran and pasture; well water. Inspected July 26, 1897.
- Chas. Siegel, Chicago Road; number of cows, 52; condition of stock, good; stables, clean; utensils, clean; feed, bran, middlings and pasture; well water. Inspected July 26, 1897.
- Chas. Loss, Lake Road, Town Lake; number of cows, 11; condition of stock, good; stables, clean; utensils, clean; feed, corn meal, oats, pasture and ensilage; well water. Inspected July 26, 1897.
- John Vaukafski, 8th Ave., Town Lake; number of cows, 1; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 27, 1897.
- Chas. Uhlenberg, 8th Ave., Town Lake; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 27, 1897.



- Laurence Smith, 8th Ave., Town Lake; number of cows, 7; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; city water. Inspected July 27, 1897.
- I. Karth, Okiahoma Road, Town Lake; number of cows, 35; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, corn meal and pasture; well water. Inspected July 27, 1897.
- Christ Speicht, Janesville Plank Road, Town Greenfield; number of cows, 20; condition of stock, good; stables, clean; utensils, clean; feed, corn meal and pasture; well water. Inspected July 28, 1897.
- B. Jungbluth, Janesville Plank Road, Root Creek; number of cows, 19; condition of stock, good; stables, clean; utensils, clean; feed, bran and pasture; well water. Inspected July 28, 1897.
- Irwin Cabb, plank road half mile south of Hale's Corners; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, pasture; spring water. Inspected July 28, 1897.
- A. F. Repgke, plank road, one mile southwest of Hale's Corners; number of cows, 10; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 28, 1897.
- Horlick's Food Co., post office, Racine, Rapids Road; number of cows, 120; condition of stock, good; stables, very clean; utensils, perfectly clean; well water. Inspected November 6, 1897.
- Jacob M. Brown, Racine post office, Milwaukee Road; number of cows, 4; condition of stock, good; stables, O. K.; utensils, clean; feed, hay, corn meal and corn stalks; well water. Inspected November 6, 1897.
- Wm. Koefford, Racine post office, Milwaukee Road; number of cows, 20; condition of stock, good; stables, clean; utensils, clean; feed, corn and hay; well water. Inspected November 6, 1897.
- S. Knutson, Racine post office, Milwaukee Road; number of cows, 20; condition of stock, good; stables, clean; utensils, clean; feed, oats, cornstalks and hay; well water. Inspected November 6, 1897.
- Hans Iverson, Racine post office, Milwaukee Road; number of cows, 13; condition of stock, good; stables, clean; utensils, clean; feed, barley and oats mixed, corn meal and hay; well water. Inspected November 6, 1897.
- Joseph Rowley, Middle Road, post office, Racine, Wis.; number of cows, 30; condition of stock, very good; stables, whitewashed and floor sprinkled with lime; utensils, very clean; feed, hay, corn stalks, corn and oats ground; well water; milk house, very clean; yards, clean. Inspected November 9, 1897.
- Joseph Rowley, Middle Road, post office, Racine, Wis.; number of cows, 33; condition of stock, very good; stables, whitewashed, floor sprinkled with lime; utensils, very clean; feed, hay, corn stalks, corn and oats ground; well water; milk house, very clean; yards, clean. Inspected November 9, 1897.
- H. Y. Troutwain, Middle Road, post office, Racine, Wis.; number of cows, 32; condition of stock, very good; stables, whitewashed, floor sprinkled with lime; utensils, very clean; feed, hay, corn stalks, corn and oats ground; well water. Stable yard paved with pine blocks; a first-class establishment. Inspected November 9, 1807.
- Evan J. Jones, Franksville Road, post office, Racine, Wis.; number of cows, 38; condition of stock, very good; stables, whitewashed walls, very clean; utensils, very clean; feed, hay, corn, corn stalks, bran and middlings; well water. Most excellent dairy. Inspected November 9, 1897.
- Soren Hansen, Franksville Road, post office, Racine, Wis.; number of cows, 30; condition of stock, excellent; stables, clean; utensils, clean; good milkhouse; feed, hay, bran, oats, middlings and corn meal; well water. Good dairy. Inspected November 9, 1897.
- C. A. Werstern, Rapids Road, post office, Racine; number of cows, 65; condition of stock, excellent; stables, clean, whitewashed walls, lime on floor; utensils, perfectly clean; feed, oats, bran and hay; well water. A most excellent dairy; everything in the best of order. Inspected November 9, 1897.
- J. French, Franksville Road, post office, Racine; number of cows, 46; condition of stock, good; stables, very clean; utensils, clean; feed, hay, corn and corn stalks; well water. Clean dairy. Inspected November 10, 1897.

- Chris. Banks, Middle Road, post office, Racine; number of cows, 10; condition of cows, good; stables, whitewashed and clean; utensils, clean; feed, nay, corn and corn stalks; well water. Inspected November 10, 1897.
- E. H. Perkins, Middle Road, post office, Racine; number of cows, 37; condition of stock, good; stables, very clean; utensils, clean; feed, hay, corn and corn stalks; well water. Very good barn. Inspected November 10, 1897.
- Wm. Peterson, Franksville Road, post office, Racine; number of cows, 16; condition of stock, good; stables, clean; utensils, clean; feed, hay and corn stalks; well water. Clean dairy. Inspected November 10, 1897.
- Jacob Stamness, Stage Road, post office, Franksville; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn, bran and corn stalks; well water. Inspected November 12, 1897.
- Henry Houch, Old Stage Road, post office, Racine; number of cows, 26; condition of stock, very good; stables, good; utensils, clean; feed, hay, bran, mill feed, corn and oats; well water. Very clean dairy. Inspected November 12, 1897.
- P.. J. Williams, Old Stage Road, post office, Racine; number of cows, 26; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn, bran and ground feed; well water. Good barn; very clean dairy. Inspected November 12, 1897.
- J. O. Thomas, Town Caledonia, post office, Linwood; number of cows, 32; condition of stock, very good; stables, very clean; utensils, clean; feed, hay, bran, corn and corn stalks; water, well in winter, Root river in summer. Very clean dairy. Inspected November 12, 1897.
- Walter Mann, Old Stage Road, post office, Racine; number of cows, 25; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, hay, corn, cut feed, corn meal and bran; well water. Excellent dairy. Inspected November 12, 1897.
- Geo. Kattenschnee, Old Stage Road, post office, Racine; number of cows, 17; condition of stock, good; stables, very clean; utensils, clean; feed, hay, corn, oats and corn stalks; well water. Clean dairy. Inspected November 12, 1897.
- E. E. Gifford, Old Stage Road, post office, Racine; number of cows, 28; condition of stock, good; stables, very clean; utensils, very clean; feed, hay, corn and oats, cut feed and corn stalks; well water. Very clean dairy. Inspected November 12, 1897.
- Isaac Mann, Franksville post office; number of cattle, 30; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, bran and corn; well water. A clean dairy. Inspected November 16, 1897.
- John J. Jones, post office, Racine; number of cows, 15; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn and cut feed; well water. Clean dairy. Inspected November 16, 1897.
- E. E. Giddings, post office, Franksville; number of cows, 18; condition of stock, good; stables, clean; utensils, clean; feed, cut feed, hay, bran and meal; well water. Very clean dairy. Inspected November 16, 1897.
- John M. Roberts, Franksville post office; number of cows, 50; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, hay, bran, cut feed and barley sprouts; well water. Clean dairy. Inspected November 16, 1897.
- Jackson I. Case, post office, Racine; number of cows, 20; condition of stock, very good; stables, clean; utensils, clean; feed, hay, bran and corn stalks; well water. Fine herd of Jerseys. Inspected November 17, 1897.
- John Streweller, post office, Racine; number of cows, 11; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, bran and ground feed; well water. Good stable. Inspected November 17, 1897.
- Wm. H. Uelrick, Racine post office; number of cows, 12; condition of stock, good; stables, fair; utensils, clean; feed, corn stalks, hay, bran and cut feed; well water. Inspected November 17, 1897.
- N. P. Hansen, Racine post office; number of cows, 5; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn stalks and bran; well water. Inspected November 17, 1897.
- C. P. Hansen, Racine post office; number of cows, 10; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn stalks and cut feed; well water. Inspected November 17, 1897.

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- F. Johnson, Racine post office; number of cows, 13; condition of stock, good; stables, clean; whitewashed; utensils, clean; feed, hay, corn meal, bran and corn stalks; well water. Inspected November 17, 1897.
- C. C. Beebe, Racine post office; number of cows, 35; condition of stock, very good; stables, clean; utensils, clean; feed, hay, corn and bran; well water. Excellent dairy. Inspected November 17, 1898.
- Olaf Winglav, Plank Road, post office, Racine; number of cows, 17; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, corn meal and bran; well water. Inspected November 18, 1897.
- J. W. Pearce, Plank Road, Racine post office; number of cows, 4; condition of stock, good; stables, fair; utensils, clean; feed, cut feed, hay and corn; well water. Inspected November 17, 1897.
- M. Sewell, Plank Road, post office, Racine; number of cows, 40; condition of stock, good; stables, clean, waitewashed; utensils, clean; feed, oat meal, corn and cut feed; well water. Very good dairy. Inspected November 18, 1897.
- Griffith Bros., Mount Pleasant, post office, Racine; number of cows, 49; condition of stock, good; stables, clean; feed, hay, cut feed and corn; well water. Very good dairy. Inspected November 18, 1897.
- C. Nelson, Plank Road, Racine post office, number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, bran, oats and corn; well water. Inspected November 18, 1897.
- H. Newman, Mount Pleasant, Racine post office; number of cows, 35; condition of stock, very good; stables, clean, whitewashed; utensils, clean; feed, oats, corn meal and cut feed; well water. Excellent dairy. Inspected November 18, 1897.
- W. H. Lewis, Plank Road, Racine post office; number of cows, 12; condition of stock, good; stables, very good; utensils, clean; feed, hay, cut feed, corn and bran; well water. Inspected November 18, 1897.
- I. Rutez, Old Rapids Road, post office, Racine; number of cows, 8; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, hay, bran and cut feed; well water. An excellent dairy. Inspected November 19, 1897.
- Rassmusson Bros., Caledonia, post office, Racine; number of cows, 8; condition of stock, good; stables, fair; utensils, clean; feed, oats, corn, cut feed and hay; well water. Inspected November 19, 1897.
- Henry Peehn, Caledonia, post office, Racine; number of cows, 26; condition of stock, goo.; stables, very good; utensils, clean; feed, oats and corn, cut feed and hay; well water. An excellent dairy. Inspected November 19, 1897.
- I. Blessinger, Caledonla, post office, Racine; number of cows, 4; condition of stock, good; stables, clean; utensils, clean; feed, corn stalks, beets and hay; well water. Inspected November 19, 1897.
- John Fiest, Caledonia, post office, Racine; number of cows, 5; condition of stock, good; stables, good; utensils, clean; feed, hay, corn and cut feed; well water. Inspected November 19, 1897.
- Geo. P. Herchen, Old Rapids Road, post office, Racine; number of cows, 12; condition of stock, good; stables, not clean; utensils, clean; feed, hay and corn; well water. Notified to clean stables at once. Inspected November 19, 1897.
- Wm. Loose, 30th St., Milwaukee, near C., M. & St. P. tracks: number of cows, 7; condition of stock, dirty; stables, dirty; utensils, 2 cans, not very clean; feed, distillery slops, hay, bran and corn; well water. Ventilation poor; a dirty place. Inspected January 5, 1898.
- A. Sahr, 30th St., near C., M. & St. P. tracks, Milwaukee; number of cows, 11; condition of stock, dirty; condition of stables, dirty; utensils, 2 cans, clean; feed, distillery slops, middlings and hay; well water. Ventilation poor. Inspected January 5, 1898.
- Aug. Pritzloff, 947 20th St., Milwaukee; number of cows, 5; condition of stock, dirty; bedding, shavings; stables; fair; utensils, clean; feed, brewers' grains, middlings, vinegar slops, claimed for cows for own use; well and city water. Fair ventilation. Inspected January 5, 1898.

- Aug. Iahuke, 895 20th St., Milwaukee; number of cows, 11; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains (sweet), barley sweet, barley malt sprouts, middlings and bran; well water. Good ventilation. Inspected January 5, 1898.
- Albert Erdman, 925 20th St.; number of cows, 4 (1 cow calving); condition of stock, not clean; stables, dirty; feed, brewers' grains; city water. No one on premises. Inspected January 5, 1898.
- Aug. Erdman, 944 20th St., Milwaukee; number of cows, 7; condition of stock, fairly clean, hay bedding; stables, fair; utensils, clean. Feed, hay, brewers' grains, corn, ground feed, distillery slops occasionally; city water. Ventilation good. Inspected January 5, 1898.
- R. Goerke, 1154 18th St., Milwaukee; number of cows, 9; condition of stock, not clean; stables, fairly clean, bedding, shavings; utensils, clean (2 cans used); feed, corn meal, brewers' grains, hay and corn stalks; city water. Ventilation sufficient. Inspected January 5, 1898.
- Henry Goerke, 1180 18tn St., Milwaukee; number of cows, 6; condition of stock, not clean; stables, clean, no bedding; utensils, clean; feed, middlings, hay and brewers' grains; city water. Ventilation sufficient; does not peddie by wagon; only to those who call for milk; makes butter. Inspected January 5, 1808.
- H. Blank, 1915 Brown St., Milwaukee; number of cows, 14; condition of stock, fairly clean; stables, very good; utensils, clean; feed, brewers' grains, ground feed, middlings and hay; city water. Doesn't peddle by wagon; customers call; ventilated; cows cleanest so far found. Inspected January 6, 1898.
- E. Schmidt, 2'13 Walnut St., Milwaukee; number of cows, 9; condition of stock, not clean; stables, fair; utensils, clean (2 cans); feed, middlings, ground feed, brewers' grains and hay; well water. Ventilation sufficient. Inspected January 6, 1898.
- John Schmechel, 2522 Vliet St., Milwaukee; number of cows, 7; condition of stock, not clean; stables, fairly clean; utensils (2 cans), clean; feed, brewers' grains, distillery slops, middlings, ground feed and hay; city water. Three small windows; ventilating shaft small. Inspected January 6, 1898.
- Mrs. Sachert, 2530 Vilet St., Milwaukee; number of cows, 4; condition of stock, not clean; feed; middlings, hay, brewers' grains and hay; well water. Ventilation poor; going out of business. Inspected January 6, 1898.
- Paul Engleman, 2401 Brown St., Milwaukee; number of cows, 6; condition of stock, fair; stables, fair; utensils, clean; feed, hay, brewers' grains and ground feed; well water. Ventilation sufficient. Inspected January 6, 1898.
- Adolph Foos, 1334 Humboldt Av., Milwaukee; number of cows, 10; condition of stock, not clean; stables, fair, straw bedding; utensils, (2 cans), clean, delivers to calling customers, peddles one can; feed, brewers' grains, middlings and hay; well water. Ventilation sufficient. Inspected January 6, 1898.
- II. Voss, 920 Richard St., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, hay and middlings; city water. People call for milk; ventilated. Inspected January 6, 1898.
- Martin Unter, 1439 Humboldt Ave., Milwaukee; number of cows, 6; condition of stock, not clean; stables, fairly clean, leaves for bedding; utensils, 2 cans; feed, brewers' grains, hay, middlings and ground feed; water from large pond. Ventilation poor. Inspected January 6, 1898.
- Frank Wolschek, 1189 Weil St., Milwaukee; number of cows, 9; condition of stock, not clean; stables, not very clean; utensils, 2 cans daily; feed, middlings, hay and brewers' grains; well water. Ventilation poor. Inspected January 6, 1898.
- I. Richard, 2220 Lloyd St., Milwaukee; number of cows, 5; condition of stock, not clean; stables, fair; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected January 7, 1898.
- John Lench, 1450 10th St., Milwaukee; number of cows, 16; condition of stock, clean, neat; stables, clean; bedding, shavings; utensils (5 cans), clean; feed, brewers' grains, middlings and some oat meal; city and well water.



- Well ventilated; whitewashed walls; a good clean dairy; an exception so far. Inspected January 7, 1898.
- Fred Dobbeigheil, 1054 9th St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, not clean; feed, brewers' grains, hay and middlings; well water. Ventilated; customers call for milk. Inspected January 7, 1898.
- Jos. Kunaske, corner Weil and Chambers Sts., Milwaukee; number of cows, 3; condition of stock, not clean; stables, fairly clean, bedding; utensils, cans not present; feed, brewers' grains, hay and middlings; well water. Ventilation, one small opening, 10x10; customers call for milk. Inspected January 7, 1898.
- August Endas, corner Chambers St. and Island Ave., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, cans out; feed, brewers' grains, hay and middlings; well water. Ventilated. Inspected January 7, 1898.
- Thos. Lyons, 921 Sobreske St., Milwaukee; number of cows, 24; condition of stock, not clean; stables, not very clean; feed, brewers' grains, bran, middlings and cut feed; city and well water. Whitewashed walls and ceilings; ventilated. Inspected January 7, 1898.
- Carl Warrod, 1311 Louis Ave., Milwaukee; number of cows, 4; condition of stock, not clean; stables; fairly clean; feed, brewers' grains, distillery slops and hay; well water. Ventilated. Inspected January 8, 1898.
- A. Shenper, 1185 24th St., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, two; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 8, 1898.
- August Dreblow, 1220 Washington Ave., Milwaukee; number of cows, 12; condition of stock, not clean; feed, brewers' grains, middlings, cut feed and hay; well water. Ventilated. Inspected January 8, 1898.
- H. Brown, 1209 25th St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, fairly clean; feed, brewers' grains and hay; well water. Ventilated by one window. Inspected January 8, 1898.
- Louis Radman, 735 22d St., Milwaukee; number of cows, 6; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and distillery slops; city water. Ventilation sufficient. Inspected January 8, 1898.
- John Bergman, 786 22d St., Milwaukee; number of cows, 6; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn and distillery slops; well water. Ventilation sufficient. Inspected January 8, 1898.
- C. Bast, 1022 25th St., Milwaukee: number of cows, 11; condition of stock, very dirty; stables, fairly clean; utensils, clean: feed, distillery slops, brewers' grains and hay; well water. Ventilated. Inspected January 10, 1898.
- H. Lucknous, 1239 Buffham St., Milwaukee; number of cows, 8; condition of stock, not clean, no bedding; stables, not clean; utensils, clean; feed, brewers' grains, hay and corn meal; well water. Ventilated. Inspected January 10, 1898.
- II. Rogge, 547 241/2 St., Milwaukee; number of cows, 8; condition of stock, O. K.; stables O. K.. Sold cows this day and goes out of business. Inspected January 10, 1898.
- I. Wenlopske, 946 Pulaski St., Milwaukee: number of cows, 3; condition of stock, not clean: stables, not clean: feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected January 11, 1898.
- Aug. Holst, 299 Bellevue Place, Milwaukee; number of cows, 7: condition of stock, not clean; stables, fair; feed, brewers' grains, hay and middlings. Poor ventilation. Inspected January 11, 1898.
- A. Hildebrandt, 333 Pulaski St., Milwaukee: number of cows, 4; condition of stock, not as clean as should be; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; city water. Ventilated. Inspected January 11, 1898.
- Mrs. L. Secons. 1109 North Water St., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected January 11, 1898.

- W. Janskeshi, 493 Bartlett St., Milwaukee; number of cows, 6; condition of stock, fairly clean; stables, quite clean; feed, brewers' grains, middlings and hay; city water. Ventilated. Does not peddle by wagon. Inspected January 11, 1898.
- Martin Koleski, 1150 Bremer St., Milwaukee; number of cows, 12; condition of stock, not clean; stables, not very clean; utensils, clean; feed, brewers' grains, middlings and hay; city water. Ventilated. Inspected January 11, 1898.
- Jas. Korpal, 749 5th Ave., Milwaukee; number of cows, 7; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, hay and middlings; well water. Ventilated. Inspected January 12, 1898.
- A. Dreves, 710 8th Ave., Milwaukee; number of cows, 15; condition of stock, not clean; stables, fairly clean; utensils (2 cans), clean, people also call for milk; feed, brewers' grains, middlings and hay; well water. Whitewashed ceiling and walls; ventilated. Inspected January 12, 1898.
- Jas. Turbach, 737 6th Ave., Milwaukee; number of cows, 9; condition of stock, not clean; stables, fair; feed, brewers' grains, middlings and hay; city water. Ventilated. Inspected January 12, 1898.
- Anton Korzenske, 1005 11th Ave., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, clean; utensils, clean; feed, brewers' grains, middlings, hay and corn meal; well water. Ventilated. Inspected January 13, 1808
- John Pleske, 911 10th Ave., Milwaukee; number of cows, 8; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings, corn meal and hay; well water. Ventilted. Inspected January 13, 1898.
- Wm. Schweder, 670 12th Ave., Milwaukee; number of cows, 9; condition of stock, 4 clean, 5 not clean; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated by windows. Inspected January 13, 1898.
- C. Rebatski, 897 10th Ave., Milwaukee; number of cows, 6; condition of stock, fair; stables, clean; feed, brewers' grains, middlings, distillery slops and hay; well wter. Ventilated. Inspected January 13, 1898.
- M. Bahrend, 722 13th Ave., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- John Mekowske, 822 Lincoln Ave., Milwaukee; number of cows, 11; condition of stock, quite clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- John Yojaka, 673 Grove St., Milwaukee; number of cows, 13; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- John Wiescha, 511 Maple St., Milwaukee; number of cows, 7; condition of stock, not clean; stables, not clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- Anton Woski, 709 4th Ave., Milwaukee; number of cows, 3; condition of stock, not clean; feed, brewers' grains, middlings and hay; well water. Not ventilated. Inspected January 13, 1898.
- C. Schultze, 479 17th Ave., Milwaukee; number of cows. 5; condition of stock, not clean; stables not clean; feed, brewers' grains, distillery slops, middlings and hay; well water. Ventilated. Inspected January 14, 1898.
- C. Raster, corner Oklahoma and Clement Aves., Milwaukee; number of cows, 65; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, distillery slops, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- I. Welchsteck, 985 Pratt St., Milwaukee: number of cows. 2: condition of stock, not clean; stables, not clean; feed, brewers' grains, distillery slops, middlings and hay; well water. Ventilated. Inspected January 14, 1898.
- W. Kevanke, 626 Greenbush St., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water, Ventilated. Inspected January 15, 1898.



- M. Kuyana, 513 Mapie St., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, distillery slops, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- I. Limpki, 634 Grove St., Milwaukee; number of cows, 4; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, distillery slops, brewers' grains, corn, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- P. Hoyeck, 638 6th Ave., Milwaukee; number of cows, 5; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- Thomas Baleski, 733 13th Ave., Milwaukee; number of cows, 2; condition of stock, fairly clean; stables, fairly clean; feed, distillery slop, brewers' grains and middlings; well water. Ventilated. Boy said: "Don't give cows any water." Inspected January 15, 1898.
- Fred Liefert, corner Forest Home and 13th Aves., Milwaukee; number of cows, 7; condition of stock, not very clean; stables, not very clean; utensils, clean; feed, brewers' grains, distillery slops (on Saturdays), middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- I. Rozenski, 612 Greenbush St., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- Milwaukee Nursing Milk Establishment, N. Shil & Co., Oakland Ave., post office box 209, Milwaukee; number of cows, 35; condition of stock, excellent; stables, clean; utensils, clean; feed, corn meal, corn and oats ground, cut fodder and hay; well water. Well conducted dairy. Inspected January 17, 1898.
- Julius Voelz, 700 Oakland Ave., Milwaukee; number of cows, 25; condition of stock, fairly clean; stables, and old stable, not well ventilated; utensils, clean; feed, middlings, barley, chaff and hay; well and river water. Some cows cleaned and some not. Inspected January 17, 1898.
- C. Tenier, 447 Bishop St., Milwaukee; number of cows, 1; condition of stock, not clean; stables, not clean; feed, hay and middlings; well water. Inspected January 17, 1898.
- P. Justin, 640 Superior St., Milwaukee; number of cows, 4; condition of stock, fairly clean; stables, fairly clean; feed, hay, middlings and cut fodder; well water. Going out of business. Inspected January 17, 1898.
- I. Krause, 414 20th Avenue, Milwaukee; 1 cow, condition of stock, not clean; stables, fair; feed, brewers' grains and middlings; well water. Ventilated. Inspected January 18, 1898.
- Michael Kujawa, 1007 Garden St., Milwaukee; number of cows, 5; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 18, 1898.
- A. Ostrowesik, 887 Franklin St., Milwaukee; number of cows, 3; condition of stock, two clean, one not clean; stables, not clean; feed, brewers' grains, middlings and hay; well water. Ventilation poor. Inspected January 18, 1898.
- A. Ceilowski, 746 19th Avc., Milwaukee; number of cows, 3; condition of stock, not very clean; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated by windows; going out of business in April. Inspected January 18, 1898.
- Loren Cyeska, 1104 8th Ave., Milwaukee; number of cows, 6; condition of stock, not clean; stables, not clean: utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilation poor. Inspected January 18, 1898.
- W. Mathews and Julius Mathews, corner Burleigh and 27th Sts., Milwaukee; number of cows, 24; condition of stock, not clean; condition of stables, fair; utensils, not present; feed, distillery slops, brewers' grains, hay and cut feed; well water. Ventilated. "Don't clean cattle; nobody does." "Don't water them." Inspected January 19, 1898.
- Gotlieb Goll. 774 21st St., Milwaukee; number of cows, 5: condition of stock, yery dirty; stables, very dirty; utensils, not seen; feed, distillery slops,

- brewers' grains; city water. Ventilation poor. Nobody at home when I called. Inspected January 19, 1898.
- Jas. Keller, Hopkins Ave., outside city limits, Milwaukee; number of cows, 32; condition of stock, not clean; stables, clean, bedding; utensils, clean; feed, middlings, hay and cut fodder; well water. Ventilated by windows. "Don't clean cows." Inspected January 19, 1898.
- W. Rungee, 426 19th St., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, middlings and hay; city water. Ventilated. Inspected January 19, 1898.
- C. Engleman, 1332 Fond du Lac Ave., Milwaukee; number of cows, 3 (2 sold January 21); condition of stock, fairly clean; condition of stables, fair; feed, middlings and hay; city water. Ventilated. Inspected January 21, 1898.
- E. Tesch, 1141 24th St., Milwaukee; number of cows, 4; condition of stock, not clean, dirty; stables, not clean; feed, brewers' grains, middlings and hay; well water. Ventilation poor. Inspected January 21, 1898.
- C. Arndt, 1028 24½ St., Milwaukee; number of cows, 2; condition of stock, not clean (dirty); stables, not clean; feed, middlings and hay; well water. Ventilation poor. Inspected January 21, 1898.
- E. Muchleoder, 1151 21st St., Milwaukee; number of cows, 10; condition of stock, fairly clean; stables, fair; utensils, clean; feed, brewers' grains, hay and distillery slops; city water. Ventilated. Inspected January 22, 1898.
- Frank Sapanske, 1201 Weil St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, not clean; feed, distillery slops, middlings and hay; well water. Ventilation poor. Inspected January 22, 1898.
- John Lovinska, 1148 Bremen St., Milwaukee; number of cows, 3; condition of stock, fair; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; city and well water. Ventilated. Inspected January 22, 1898.
- Aug. Menski, 1211 Bremen St., Milwaukee; number of cows, 2; condition of stock, not clean; stables, not clean; feed, distillery slops, middlings and hay; well water. Ventilated. Inspected January 22, 1898.
- H. Krazoska, 1136 Bremen St., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings, hay and distillery slops; city water. Ventilated. Inspected January 22, 1898.
- G. Loopnow, 1014 North Pierce St., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay and distillery slops (small quantity); city water. Well ventilated. Inspected January 22, 1898.
- Thos. Lyons, 921 Sobeske St., Milwaukee; number of cows, 24; condition of stock, not clean; stables, not very clean; feed, brewers' grains, bran, middlings, cut corn stalks; city water. Whitewashed walls and ceilings; cleaner than first visit, with A. S. Mitchell, state chemist. Inspected (second visit) January 25, 1898.
- A. Helberstadt, 333 Pulaski St., Milwaukee; number of cows, 4; condition of stock, not as clean as should be; stables, fair; feed, brewery grains, middlings and hay; city water. Ventilated. With A. S. Mitchell, state chemist. Inspected (second visit) January 25, 1898.
- A. Sahr, 30th St., Milwaukee: number of cows, 11; condition of stock, dirty; stable, dirty; utensils, not seen; feed, distillery slops, middlings and hay; well water. Ventilation poor. Boy said, didn't give water only in slops and feed; 2 barrels each day and a half of slops. Inspected (second visit) February 2, 1898.
- Wm. Loose, 30th St., Molwaukee: number of cows, 7; condition of stock, dirty; stables, dirty; utensils, not seen; feed, distillery slops, hay, bran and corn; well water. Dirty place; ventilation poor; 2 barrels slops per week. Give water only in slops and feed. Inspected (second visit) February 2, 1898.
- Gottlieb Gall, 774 21st St., Milwaukee: number of cows, 5; condition of stock, dirty; 1 cow apparently not well; stables, dirty; feed, distillery slops, brewers' grains and hay; city water. Ventilation poor. Inspected (second visit) February 2, 1898.

- W. Mathews, corner Burleigh and 27th Sts., Milwaukee; number of cows, 22; condition of stock, not clean; stables, fair; feed, distillery slops, brewers' grains, hay and cut feed; well water. Ventilated. "Don't give water to cows," only tnat given in slops; two or three loads of slops per week; wagon holds seven barrels. Inspected (second visit) February 2, 1898.
 - C. Bast, 1022 25th St., Milwaukee; number of cows, 9; condition of stock, dirty; stables, fairly clean; feed, distillery slops, brewers' grains and hay; well water. Two barrels distillery slops per week. Ventilated. Inspected (second visit) February 2, 1898.
 - Aug. Treblow, 1220 27th St., Milwaukee; number of cows, 11; condition of stock, not clean; stables, not clean; feed, brewer's grains, middlings, barley sprouts and hay; well water. Ventilated. Better than first visit. Inspected (second visit) February 2, 1898.
- Frank Sopanski, 1201 Weil St., Milwaukee; number of cows, 3; condition of stock, clean; stables, clean; utensils, not seen; feed, distillery slops, middlings and hay; well water. Ventilation poor. Cows and stable cleaned up since inspected January 22, 1898. Inspected (second visit) March 11, 1898.
- Frank Wolschek, 1189 Weil St., Milwaukee; number of cows, 7; condition of stock, fairly clean; stables, not as clean as should be, floor wet, no bedding; utensils, not seen; feed, middlings, brewers' grains and distillery slops; well water. Ventilation poor. Much better appearance than when inspected January 8, 1898. Inspected (second visit) March 11, 1898.
- John Lenck, 1450 10th St., Milwaukee; number of cows, 16; condition of stock, clean, fine stock; stables, clean, bedding; utenslls, 5 cans, clean; feed, brewers' grains, middlings, some oat meal; city and well water. Whitewashed walls; ventuation good. A neat dairy. Inspected (second visit) March 11, 1898.
- Aug. Holst, 299 Bellvue St., Milwaukee; number of cows, 6; condition of stock, fairly clean, bedding; stables, fairly clean; utensils, not seen, doesn't deliver milk by wagon; feed, brewers' grains, clover hay and middlings; river and well water. Great improvement in looks of cattle since inspected January 11, 1898. Inspected (second visit) March 11, 1898.
- Martin Koleski, 1150 Bremen St., Milwaukee; number of cows, 12; condition of stock, clean; stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings and hay; city water. Cows and stable in better shape than when inspected January 11, 1898; quite an improvement shown. Inspected (second visit) March 11, 1898.
- Th. Krazoska, 1136 Bremen St., Milwaukee; number of cows, 10; condition of stock, clean; stables, clean; utensils, not seen; feed, brewers' grains, middlings, distillery slops and hay; city water. Very much improved since inspected January 22, 1898. Inspected (second visit) March 11, 1898.
- Thos. Lyons, 921 Sobeski St., Milwaukee; number of cows, 22; condition of stock, not clean; stables, not very clean; utensils, not seen; feed, brewers' grains, bran, middlings and cut corn stalks; city and well water. Walls whitewashed, but need a new coat. Cobwebs on ceilings. Ventilated. Not greatly improved since former visits. Yard dirty. Inspected March 11, 1898.
- August Gudes, 148 Chambers St., corner Chambers St. and Island Ave., Milwaukee; number of cows, 9; condition of stock, very dirty; utensils, not seen; stables, forward part stalls clean, with some bedding, rear dirty; utensils, not seen; feed, brewers' grains, hay and middlings; well water. No improvement since inspected January 7, 1898. Cows to be tested by Dr. Clute; one cow could hardly stand. Inspected (second visit) March 11, 1898.
- C. Bast, 1022 25th St., Milwaukee; number of cows, 11; condition of stock, dirty, one cow lousy, 1 condemned by Dr. Clute; stables, dirty; utensils, not seen; feed, distillery slops, brewers' grains, hay and middlings; well water. Ventilation poor. Dr. Clute ordered cow quarantined by Board of Health. Conditions worse than on January 10, 1898, and February 2, 1898. Inspected (third visit) March 12, 1898.
- Julius Voltz, 700 Oakland Ave., Milwaukee; number of cows, 25; condition of stock, clean; stables, clean, old buildings; utensils, not seen; feed, middlings, barley chaff and brewers' grains; well and river water. Great improvement

- since inspected January 17. Wall and cellings lately whitewashed. Inspected (second visit) March 11, 1898.
- A. Dreves, 710 8th Ave., Milwaukee; number of cows, 15; condition of stock, clean; stables, fair, bedding, shavings; utensils, clean; feed, brewers' grains, middlings and hay; city water. Wnitewashed walls. Ventilated. Improved since visit of January 12, 1898. Inspected (second visit) March 12, 1898.
- Leon Cijeska, 1104 8th Ave., Milwaukee; number of cows, 6; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilation not good; sour smell in barn. Better condition than on January 18, 1898. Inspected (second visit) March 12, 1898.
- C. Raster, corner Oklahoma and Clement Aves., Milwaukee; number of cows, 65; condition of stock, fairly clean; stable, fairly clean; utensils, clean; good milkhouse; feed, brewers' grains, distillery slops, middlings and hay; well water. Main part of barn ventilated; shed with nine cows not ventilated. Better condition than since visit of January 14, 1898. Inspected (second visit) March 12, 1898.
- Wm. Matheus, corner Burleigh and 27th Sts., Milwaukee; number of cows, 24; condition of stock, not clean; stables, fair, no bedding, floors damp; utensils, not seen; feed, distillery slops, brewers' grains and cut feed; well water. Ventilation not sufficient; ceilings very low; barn an old one. Give no water. Inspected (third visit) March 12, 1898.
- Albert Erdman, 925 20th St., Milwaukee; number of cows, 4; condition of stock, fairly clean; utensils, not seen; feed, brewers' grains, hay middlings; city water. Ventilated. Since inspection of January 5, 1898, appearance of stock and stable improved. Inspected (second visit) March 24, 1898.
- Henry Goerke, 1180 20th St., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, hay, brewers' grains; city water. Ventllated. No peddling by wagon. Improved since inspection January 5, 1898. Inspected (second visit) March 24, 1898.
- R. Goerke, 1154 18th St., Milwaukee; number of cows, 9; condition of stock, clean; condition of stables, fairly clean; bedding, shavings; utensils, clean; feed, corn meal, brewers' grains, corn stalks, hay; city water. Ventilation fair. Improved since January 5, 1898. Inspected (second visit) March 24, 1898.
- E. Muehlender, 1151 21st St., Milwaukee; number of cows, 10; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, hay, distillery slops; city water. General appearance much improved since January 21st, 1898. Inspected (second visit) March 24, 1898.
- August Jahnke, 895 20th St., Milwaukee; number of cows, 11; condition of stock, clean; condition of stables, clean; bedding, shavings; utensils, clean; feed, brewers' grains, barley sprouts, middlings, bran, hay; well water. Good ventilation. Inspected January 5, 1898. Inspected (second visit) March 24, 1898.
- August Pritzloff, 927 20th St., Milwaukee; number of cows, 5; condition of stock, 3 clean, 2 dirty; condition of stables, clean; bedding, shavings; utensils, clean; feed, brewers' grains, vinegar slops, middlings; well and city water. Fair ventilation. Since inspected on January 5, 1898, there has been a slight improvement. Inspected (second visit) March 24, 1898.
- Aug. Erdman, 944 20th St., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean, bedding; utensils, not seen; feed, hay, prewers' grains, corn, ground feed, distillery slops; city and well water. Ventilation good. Since inspected on January 5, 1898, the general appearance has been better. Inspected (second visit) March 24, 1898.
- H. Voss, 920 Richards St., Milwaukee; number of cows, 8; condition of stock, 7 clean, 1 lousy; condition of stables, clean; utensils, clean; feed, brewers' grains, hay, middlings, hay; city water. Ventilated. Is doctoring lousy cow. Has had her but 2 weeks. Appearance of stock and stable greatly improved since January 6, 1898. Inspected (second visit) March 26, 1898.
- John Bergman, 786 22d St., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn, distillery slops; well water. Ventilated. Better appear-



- ance generally than January 8, 1898. Inspected (second visit) March 26, 1898.
- Louis Radman, 735 22d St., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, distillery slops, hay; city water. Ventilated. Quite good January 8, 1898, but better now. Inspected (second visit) March 26, 1898.
- ary 8, 1898, but better now. Inspected (second visit) March 26, 1898.

 John Schmachel, 2522 Vliet St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers grains, middlings, ground feed, hay, distillery slops; city water. Ventilation not good. Much improved since visit of January 6, 1898. Inspected (second visit) March 26, 1898.
- Mrs. F. Siefert, corner Forest Home and 13th Ave., Milwaukee; number of cows, 8; condition of stock, not clean; condition of stables, not clean, drainage poor, ordered to raise floor by Board of Health; utensils, clean; feed, brewers' grains, some distillery slops, middlings, hay; well water. Ventilated. Going out of business; "too much trouble with officers." Inspected (second visit) March 25, 1898.
- Herman Schwab, 1053 20th St., Milwaukee; number of cows, 5; condition of stock, cows very dirty; condition of stables, not clean, drainage poor, some bedding; utensils, not seen; feed, brewers' grains, hay, corn meal, cut feed; well water. Ventilation poor. Milk license should be taken from Schwab. Inspected March 25, 1898.
- E. Schmidt, 2713 Walnut St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, ground feed, brewers' grains, hay; well water. Ventilated. Improved since January 6, 1898. Inspected (second visit) March 26, 1898.
- Mrs. Seachert, 2530 Vilet St., Milwaukee; number of cows, 4; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, hay, brewers' grains; well water. Ventilation not good. Stock and stable improved since January 6, 1898. Inspected (second visit) March 26, 1898.
- John Mekaski, 822 Lincoln Ave., Milwaukee; number of cows, 11; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilated. Quite a clean dairy. Inspected January 13, 1898. Inspected (second visit) March 28, 1898.
- Jas. Tierback, 737 6th Ave., Milwaukee; number of cows, 9; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; city water. Ventilated. Much improved since inspection of January 12, 1898. Inspected (second visit) March 28, 1898.
- John Pleske, 911 10th Ave., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean: utensils, clean; feed, brewers' grains, middlings, corn meal, hay; well water. Ventilation good. Very clean and stock well taken care of. Inspected January 13, 1898. Inspected (second visit) March 28, 1898.
- C. Rebstske, 807 10th Ave., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers grains, middlings, distillery slops, hay; well water. Ventilated. Quite a neat dairy. Improved since visit on January 13, 1898. Inspected (second visit) March 28, 1898.
- Wm. Schroeder, 670 12th Ave., Milwaukee; number of cows, 9; condition of stock, clean; condition of stables, clean; utensils, 1 can clean; feed brewers' grains, middlings, hay; well water. Ventilation fair. Much improved since inspection on January 13, 1898. Inspected (second visit) March 28, 1898.
- Fred Arndt, 1513 Teutonia St., Milwaukee; number of cows, 9; condition of stock, fairly clean; condition of stables, quite clean; utensils, not seen; feed, brewers' grains, middlings, hay: well water. Ventilated. Quite clean. Inspected (first visit) March 29, 1898.
- A. Shenper, 1185 24th St., Milwaukee; number of cows, 9; condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, brewers' grains, oats and barley, hay; well water. Fair ventilation. But slight improvement since January 8, 1898. Inspected (second visit) March 29, 1898.
- H. Werner, 1801 Keefe Ave. (extreme north), Milwaukee; number of cows, S;

- condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, brewers grains, distillery slops, middlings, hay; well water. Old barn, drainage poor. Inspected (first visit) March 29, 1898.
- H. Lucknow, 1239 Buffham St., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean; utensijs, clean; feed, brewers grains, hay, corn; well water. Ventilated. Great improvement since January 10, 1898. Inspected (second visit) March 31, 1898.
- Adolph Slede, 45th and Lisbon road, Milwaukee; number of cows, 9; condition of stock, dirty; condition of stables, not clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Poorly ventilated. Inspected April 1, 1898.
- Vincent Snyder, North Avenue road, Milwaukee; number of cows, 3; condition of stock, clean, good; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Fair condition. Inspected April 1st, 1898.
- John Hopfer, corner Elm and 44th Sts. (outside limits), Milwaukee; number of cows, 9; condition of stock, good and clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, middlings, hay; well water. Quite good. Inspected April 1st, 1898.
- Anton Gourski, 709 4th Ave., Milwaukee; number of cows, 3; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilation poor. Clean dairy. Inspected (first visit) April 1st, 1898.
- John Wiescha, 511 Maple St., Milwaukee; number of cows, 7; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Some improvement since January 13, 1898. Inspected (second visit) April 1st, 1898.
- John Yajaka, 673 Grove St., Milwaukee; number of cows, 13; condition of stock, clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Drainage not what it should be. Some better than when inspected on January 13, 1898. Inspected (second visit) April 1st, 1898.
- P. Hoyeck, 638 6th Ave., Milwaukee'; number of cows, 5; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilated. Quite clean. Better than when inspected on January 15, 1898. Inspected (second visit) April 1st, 1898.
- Mrs. C. Schultz, 479 17th Ave., Milwaukee; number of cows, 5; condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, brewery grains, distillery slops, middlings, hay; well water. One cow apparently not well and so informed Mrs. Schultz, and requested that cow be examined by veterinary surgeon. Inspected (second visit) April 1st, 1898.
- Paul Engleman, 2401 Brown St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grain, hay, bran; well and city water. Ventilated. Better than when inspected on January 6, 1898. Inspected (second visit) April 2, 1898.
- II. Blank, 1915 Brown St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grains, ground feed, middlings, hay; city water. Ventilated. Inspected January 6, 1898. Inspected (second visit) April 2, 1898.
- J. Richard, 2220 Lloyd St., Milwaukee; number of cows, 5; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grains, hay, middlings; city water. Ventilated. Much better than when inspected on January 7, 1898. Inspected (second visit) April 2, 1898.
- J. Slecakwitz, 18 Auer Ave., Milwaukee; number of cows, 8; condition of stock, fairly clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilation poor. Inspected (first visit) April 4, 1898.
- Adolph Foas, 1334 Humbolt Ave., Milwaukee; number of cows, 10; condition of stock, clean; condition of stables, clean, bedding; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Improved since January 6, 1898. Inspected (second visit) April 4, 1898.

- Martin Foas, 1439 Humbolt Ave., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean, bedding; utensils, not seen; feed, hay, middlings, ground feed; pond (large) water. Ventilation poor. Improved since January 6, 1898. Inspected (second visit) April 4, 1898.
- P. Kemmling, Fond du Lac road, Milwaukee; number of cows, 13; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn stalks; well water. Ventilated. Inspected April 7, 1898.
- Fred Leechfoos, Fond du Lac road (36th St.), Milwaukee; number of cows, 2; condition of stock, dirty; condition of stables, not clean; utensils, not seen; feed, brewers' grains, corn stalks, middlings, hay; well water. Ventilated. Inspected April 7th, 1898.
- Gustave Kahn, Fond du Lac road (37th St.), Milwaukee; number of cows, 3; condition of stock, good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, corn stalks, middlings, hay; well water. Good ventilation. Inspected (second visit) April 7, 1898.
- A. Kurth, Fond du Lac road (north toll gate), Milwaukee; number of cows, 25; condition of stock, good, fairly clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilation good. Inspected April 7, 1898.
- A. J. Painter, Fond du Lac road, Milwaukee; number of cows, 32; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, corn feed, clover hay; well water. A good, clean dairy. Inspected (second visit) April 7th, 1898.
- Fred Mepo, Sercomb road, Milwaukee; number of cows, 7; condition of stock, all good but 1 (that one lousy), others clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, hay, middlings; well water. Ventilated. Inspected April 7, 1898.
- Frank Trenz, Sercomb road, Milwaukee; number of cows, 26; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilation good. Inspected April 7, 1898.
- Louis Trenz, Sercomb road, Milwaukee; number of cows, 22; condition of stock, good, clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilated. Inspected April 7, 1898.
- L. Dittman, Sercomb road, Milwaukee; number of cows, 11; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, miudlings, hay, corn stalks; well water. Ventilated. Inspected April 7, 1898.
- Thos. Lyons, 921 Sobeeski St., Milwaukee; number of cows, 21; condition of stock, not clean; condition of stables, not clean, no bedding; utensils, not seen; feed, brewers' grains, bran, middlings, cut corn stalks; city and well water. No improvement since March 11, 1898. Inspected (fourth visit) April 8, 1898.
- Thos. Krzoska, 1136 Bremen St., Milwaukee; number of cows, 10; condition of stock, quite clean; condition of stables, cleaner than March 11, 1898; utensils, not seen; feed, brewers' grains, middlings, hay, distillery slops; city water. Quite an improvement since January 22, 1898. Inspected (third visit) April 8, 1898.
- Martin Kaleski, 1150 Bremen St., Milwaukee; number of cows, 12; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; city water. Better than January 11, 1898. Inspected (third visit) April 8, 1898.
- Frank Wolschek, 1189 Weil St., Milwaukee; number of cows, 7; condition of stock, quite clean; condition of stables, fairly clean, no bedding; utensils, not seen; feed, brewers' grains, middlings, distillery slops; well water. Ventilation poor. Great improvement since January 8, 1898. Inspected (third visit) April 8, 1898.
- John Leuck. 1450 10th St., Milwaukee; number of cows, 16; condition of stock, clean, fine stock; condition of stables, clean, bedding; utensils, 5 cans, clean; feed, brewers' grains, middlings, some oat meal; city and well water. Whitewashed walls. The cleanest dairy in the city of Milwaukee. Inspected (third visit) April 8, 1898.

- W. Mathews, corner Burleigh and 29th Sts., Milwaukee; number of cows, 22; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, distillery slops, cut feed, middlings, hay; well water. Ventilation good, floors dry. Much improved since inspection. Inspected (fourth visit) April 11, 1898.
- L. Uecker, Kilbourn road, Town of Lake, Milwaukee; number of cows, 20, condition of stock, fairly clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay, cut corn stalks, distillery slops; well water. Ventilation good. Inspected April 11, 1898.
- A. Doeblow, 1220 Washington Ave., Milwaukee; number of cows, 12; condition of stock, fairly clean, 1 cow with lumpy jaw; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Notified Board of Health to quarantine one cow with bad case of lumpy jaw. Not using milk from this cow. Inspected (third visit) April 11, 1898.
- Wm. Slactley, Kilbourn road, Town of Lake, Milwaukee; number of cows, 11; condition of stock, good, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay, corn stalks; well water. Quite fair stable. Inspected April 11, 1898.
- Gus. Mathews, Kilbourn road, Town of Lake, Milwaukee; number of cows, 17; condition of stock, fairly good and clean; condition of stables, clean; utensils, clean; feed, brewers' grains, distillery slops, hay, middlings; well water. Ventilation good. Inspected April 11, 1898.
- Joseph L. Thiede, Kilbourn road, Town of Lake, Milwaukee; number of cows, 19; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, hay, middlings, corn stalks; well water. Fairly good ventilation. Inspected April 11, 1898.
- Henry Lodde, Kilbourn road, Town of Lake, Milwaukee; number of cows, 24; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. First refused admission to stable, but gave way on threatened arrest. Inspected April 11, 1898.
- C. Schultz, 479 17th Ave., Milwaukee; number of cows. 5; condition of stock, 1 sick; condition of stables, clean, recently whitewashed; utensils, not seen. Dr. Leech to test this herd for tuberculosis on Monday, April 18, 1898. Inspected (with Dr. Leech) April 14, 1898.
- A. Doeblow, 1220 Washington Ave., Milwaukee; number of cows, 12; condition of stock, 1 with lumpy jaw; condition of stables, fair; utensils, not seen. Dr. Clute to order the cow with lumpy jaw disposed of. Killed April 16, 1898. Inspected (with Dr. Clute) April 14, 1898.
- C. Raster, cor. Oklahoma and Clement Aves., Milwaukee; number of cows, 64; condition of stock, fair; condition of stables, fair, bedding; utensils, clean; feed, distillery slops, brewers' grains, hay and middlings; well water. Better than last visit with Dr. Clute. Inspected (fourth visit) April 15, 1898.
- Fred. Zweifel, Hopkins road, Milwaukee; number of cows, 31; condition of stock, good; condition of stables, very fair, bedding; utensils, clean; feed, brewers' grains, hay, middlings, corn stalks cut; well water. Much better than January 19, 1898. Formerly owned by J. Keller. Inspected (second visit) April 20, 1898.
- Jacob Kords, Kilbourn road, Town of Lake, Milwaukee; number of cows, 40; condition of cows, clean, except 2; condition of stables, very good, bedding; utensils, clean; feed, distillery slops, hay, middlings; well water. Plenty of ventilation. Inspected April 21, 1898.
- John C. Miller, Town of Lake, 8th Ave., Milwaukee; number of cows, 8; condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, distillery slops, middlings, hay; well water. Will soon go to pasture. Inspected April 21, 1898.
- Adolph Gruether, Town of Lake, 8th Ave. (new road). Milwaukee; number of cows, 50; condition of stock, good: condition of stables, very good, fine barn; utensils, clean: feed, brewers' grains, middlings, hay, cut feed; well water. Good dairy. Inspected April 21, 1898.



- Henry Schroucke, Town of Lake, 8th Ave., Milwaukee; number of cows, 3; condition of stock, not clean; condition of stobles, fairly clean, bedding; utensils, not seen; feed, distillery slops, middlings, corn stalks, hay; well water. Inspected April 21, 1898.
- H. Grunewald, Kilbourn road, Town of Lake, Milwaukee; number of cows, 15; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers grains, middlings, hay; well water. Ventilation good. Inspected April 21, 1898.
- Spleuter Bros., Hawley road, Wauwatosa; number of cows, 29; condition of stock, good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, middlings, hay; web water. Good ventilation. Inspected April 29, 1898.
- Christian Pries, koot Creek, Hawley road, Greenfield; number of cows, 18; condition of stock, very good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, hay, middlings, cut feed; well water. Clean dairy. Inspected April 29, 1898.
- Wm. Stellok, Root Creek, Hawley road, Greenfield; number of cows, 27; condition of stock, very good, clean; condition of stables, clean, bedding; feed, brewers' grains, hay, middlings, cut feed; well water. Clean dairy. Inspected April 29, 1898.
- Adam Notle, Root Creek, Hawley road, Greenfield; number of cows, 28; condition of stock, very good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, middlings, hay, cut feed; well water. Excellent dairy. Inspected April 29, 1898.
- C. L. Dana, North Greenfield; number of cows, 30; condition of stock, good; condition of stables, good. Samples of milk taken by A. S. Mitchell and self at Camp Harvey. Freezine found in milk-house, also in samples of milk. Arrested C. L. Dana, May 16, 1898. Pleaded guilty before Justice McClintock, Wauwatosa, May 17, 1898. Fined \$25.00 and costs, \$4.25. Inspected May 10th, 1898.
- H. Meyer, Highland, near county line, Racine Co.; number of cows, 15; condition of stock, 1 cow sick with tuberculosis; condition of stables, clean; feed, pasture. Registered cow No. 33, Patton. Notified Dr. Clute, state veterinary surgeon. Cow died July 20, 1898. Inspected July 17, 1898.
- Boyd & West, Waukesha, Wis.; number of cows, 18; condition of stock, not examined; utensils, clean; feed, cows in pasture; well water. Found prevaline in box in milk-house. Complaint sworn out October 14, 1898. Inspected September 26, 1898.
- Jos. Liss, 1149 Bremen St., Milwaukee; number of cows, 7; condition of stock, 4 clean, 3 dirty; condition of stables, not clean; utensils, not seen; feed, distillery slops, brewers' grains and middlings; city water. Inspected March 9, 1899.
- Morris Knaak, 79 Keefe Ave., Milwaukee; number of cows, 7; condition of stock, fairly clean; condition of stables, not very clean; utensils, clean; feed, distillery slops, hay and middlings; well water. Small stable. Inspected March 9, 1899.
- I. Braunkski, 1215 Weil St., Milwaukee; number of cows, 4; condition of stock, unclean; condition of stables, unclean; utensils, not seen; feed, distillery slops, middlings and hay; city water. Photograph taken. Inspected March 8, 1899.
- F. Wolschack, 1189 Weil St., Milwaukee; number of cows, 8; condition of stock, unclean; condition of stables, unclean; utensils, not seen; feed, distillery slops, middlings and hay; city water. Photograph taken, 2:30 p. m. Inspected March 8, 1899.
- I. Scerakowicz, 965 Weil St., Milwaukee; number of cows, 5; condition of stock, dirty; condition of stables, dirty; utensils, not seen; feed, distillery slops, middlings and brewers' grains; city water. Unclean place; photograph taken, 3:20 p. m. Inspected March 8, 1898.
- Frank Gulske, 899 Falney St., Milwaukee; number of cows, 4; condition of stock, very dirty; condition of stables, very dirty; utensils, not seen; feed, distillery slops and middlings; city water. A dirty dairy. Inspected March 8, 1898.

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- John Zdrojewski, 936 Bremen St., Milwaukee; number of cows, 5; condition of stock, filthy; condition of stables, very unclean; utensils, not seen; feed, distillery slops, middlings and hay; city water. Dirty place. Inspected March 8, 1899.
- F. Slopanski, 1201 Weil St., Milwaukee; number of cows, 4; condition of stock, unclean; condition of stables, unclean; utensils, not seen; feed, distillery slops and middlings; city water. Photograph taken, 3 p. m. Inspected March 8, 1899.
- L. Klaman, 916 Dousman St., Milwaukee; number of cows, 5; condition of stock, dirty; condition of stables, dirty; feed, distillery slops, middlings and hay; city water. Inspected March 8, 1899.
- Aug. Juedes, 154 Chambers St., Milwaukee; number of cows, 10; condition of stock, in fair condition, all clean but 2; condition of stables, quite clean; utensils, not seen; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected March 9, 1899.
- Stanislaus Zaworski, 1315 Booth St., number of cows, 3; condition of stock, 2 dirty, 1 clean; condition of stables, not clean; utensils, not seen; feed, distillery slops, brewers grains and hay; water, well in cellar, has been condemned. Inspected March 9, 1899.
- Martin Kaleski, 1150 Bremen St., Milwaukee; number of cows, 12; condition of stock, fairly clean; condition of stables, not very clean; utensils, not seen; feed, brewers' grains, distillery slops, middlings and hay; city water. Ventilated. Inspected March 8, 1899.
- John Lavinski, 1148 Bremen St., number of cows, 13; condition of stock, fairly clean; condition of stables, fair; utensils, clean; feed, brewers' grains, distillery slops, middlings and hay; city and well water. Ventilated. Inspected March 8, 1899.
- Herman Voss, 920 Richards St., Milwaukee; number of cows, 10; condition of stock, fairly clean, all but 3; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings and hay; city water. Inspected March 8, 1899.
- Chas. Dohmer, Oakland Ave., Milwaukee; number of cows, 4; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, cut fodder and hay; well water. Inspected February 28, 1899.
- Mrs. Dohmen, Oakland Ave., Milwaukee; number of cows, 4; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, cut fodder and hay; well water. Inspected February 28, 1899.
- N. Schmit & Co., nursing milk dairy, Oakland Ave., Milwaukee; number of cows, 8; condition of stock, very good; condition of stables, clean; feed, middlings, corn, cut fodder. Twenty-five cows belonging to this herd taken on February 20th to Granville, Wis. The 8 left will be sold to butchers. Inspected February 28, 1899.
- C. Best, 1022 25th St., Milwaukee; number of cows, 8; condition of stock, very fair; condition of stables, clean, bedding; utensils, clean; feed, distillery slops, brewers' grains, middlings and hay; city water. Much better than on March 12, 1898. Inspected February 27, 1899.
- A. Shenper, 1185 24th St., Milwaukee; number of cows, 9: condition of stock, very dirty, manure on hips and belly: condition of stables, dirty; utensils, not seen: feed, brewers' grains, middlings and hay; city water. Sickness prevented proper care: so informed by proprietor. No improvement since March 20, 1898. Drainage poor. Inspected February 27, 1899.

LIST OF CREAMERIES AND CHEESE FACTORIES IN WISCONSIN, 1898.

Creameries 951 Cheese Factories 1,571
Total number of creameries and factories 2,522
CHEESE FACTORIES. Post-Office.
ADAMS COUNTY—
Davis Corners Cheese and Butter Co. Little Rock Friendship Cheese Factory. Friendship G. W. Fletcher. Grand Marsh L. C. Cristenson Big Flats C. J. Foot Oxford J. J. Zwicky Point Bluff N. H. Westman Spring Creek
BARRON COUNTY—
Gratton Dairy Co
BROWN COUNTY—
II. F. Meyer
John ConradPoland
I). Benecke
F. WittigFontenoy
A. C. Arndt
New Denmark Farmers' Co-op. Ass'nFontenoy
P. LyonsFontenoy
East Wrightstown Cheese Factory
Anton Naughtaway
William Folk
Tel. Charlier Schiller
Henry Naughtaway & CoPine Grove
Ph. Falch
F. H. Lange
H. BuchausAskeaton
F. C. SaengerLark
H. S. BeyerDenmark
Theo. VanroyLodgeville
A. T. SaengerLodgeville
Dan. Falck
Excelsior Cheese Factory
Maurice Brennan
Louis Falck
Borchardt Bros
Chas. F. Mason

BROWN COUNTY-Continued.	
Wisconsin Butter & Cheese Co	
Frank Huyters	/II
Silver Van Drew	en.
Botis Orlas	:n
Mike Brunner	'n
Lewis Goodchild	er
J. H. Osterloh	le
John Conrad	le
Albert UeckerKunes	
J. R. MeyersFork	
Geo. Drexler	ıd
Jacob Reistacker	ìУ
BUFFALO COUNTY—	
Mondovi Creamery and Cheese Co	
Seyforth Bros	
Cochrane Cheese Co	
Brinkham & Tasson Cheese Co	ne
Rohrer Bros	ae
Mill Creek Cheese FactoryAlm	ıa
Belvidere Cheese FactoryAlm	a
John Eberle Cheese FactoryAlm	
Pine Creek Cheese FactoryAlm	
Tell Creek Cheese Factory	
August J. Herold Cheese Factory	
Eberle & Moser Cheese FactoryGilmanto	
Farmers' Checse Factory	
A. R. Pierce Cheese Factory	
Rudolph Pfund Cheese Factory	
Herman Schultz Cheese Factory	
Henry Deerkop Cheese Factory	
John Jost Cheese Factory	n
Levi Deets Cheese Factory	
Trout Creek Cheese FactoryTe	
Lookout Cheese FactoryLookou	ut
GAT TILETIM GOVERNMY	
CALUMET COUNTY—	
Peter Schumacker & CoJerich	
John Actor	
Nic. Orth	•
John SnyderBran	
Heckert & Albert	
John R. McCabe	
J. & D. Ryan	
II. A. AlbesChilto	ac
E. C. Pingel	n
Jake KalbChilto	on
John Piper	on
John P. Weins	
T. J. Harder	
John Minard	
Chas. Birk	
Pat McColeBrai	
Maedke & JunkerBrillio	
J. B. Junker	
Wm. Lintner	
Chas. Feuestenberg	υL
Jos. Wolfmeyer Brillio	
Kasson Creamery Brillio	on
Dundas Butter & Cheese FactoryDunda	88
Mrs. Theo. Runte).FC

CALUMET COUNTY—Continued.
L. P. Schumacker
J. A. HernkeHibbert
August BrandesHibbert
Phillip ReisHibbert
John A. Horst
Wm. LintnerForest Junction
John Wolfmeyer Forest Junction
Fred. Lindow
Henry SchleyForest Junction
Otto Freud
F. W. RiedelPotter
Herman VoightPotter
Wm. Becker
F. W. Biedel
Peter Meyer New Holstein
Wendel BurgNew Holstein
Math. KraemerCharlesburg
Reis & MaddlerSt. John
J. J. HolzschutSherwood
Carl MedenwoldBrillion
John AmkenBrillion
Philip MeyerBrillion
Henry AchterBrothertown
Phillip KiesLake Park
Joe. BodineLake Park
Christ, Hargard
John HeinerStockbridge
Fred. Bauer
John HolshueSt. John
CHIPPEWA COUNTY—
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CHIPPEWA COUNTY—
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott
CHIPPEWA COUNTY— Anson S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley
CHIPPEWA COUNTY— Anson S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co. Albertville
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co Albertville Kelley & Cass Liddell
CHIPPEWA COUNTY— 8. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co Albertville Kelloy & Cass Liddell Snyder Bros Bloomer
CHIPPEWA COUNTY— 8. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co Albertville Kelley & Cass Liddell Snyder Bros Bloomer H. D. Cummings Bloomer
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CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co. Albertville Kelley & Cass Liddell Snyder Bros. Bloomer H. D. Cummings Bloomer Fagen Bros. Stanley CLARK COUNTY—
CHIPPEWA COUNTY— 8. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co Albertville Kelloy & Cass Liddell Snyder Bros Bloomer H. D. Cummings Bloomer Fagen Bros Stanley CLARK COUNTY— Ira Somerfeld Colby
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Kelley & Cass Liddell Snyder Bros. Bloomer H. D. Cummings Bloomer Fagen Bros. Stanley CLARK COUNTY— Ira Somerfeld Colby Steinwand Cheese Co Colby L. A. Hirsh Lynn Otto Decker Hemlock
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co Albertville Kelley & Cass Liddell Snyder Bros Bloomer H. D. Cummings Bloomer Fagen Bros Stanley CLARK COUNTY— Ira Somerfeld Colby Steinwand Cheese Co Colby L. A. Hirsh Lynn Otto Decker Hemlock Henry Jacobi Abbotsford
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher
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CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Kelley & Cass Liddell Snyder Bros Bloomer H. D. Cummings Bloomer Fagen Bros Stanley CLARK COUNTY— Ira Somerfeld Colby I. A. Hirsh Lynn Otto Decker Hemlock Henry Jacobi Abbotsford S. R. Davis Granton Farmers' Cheese Co Dorchester Distelhorst & Co Dorchester
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co. Albertville Kelley & Cass Liddell Snyder Bros. Bloomer H. D. Cummings Bloomer Fagen Bros. Stanley CLARK COUNTY— Ira Somerfeld. Colby Steinwand Cheese Co. Colby L. A. Hirsh Lynn Otto Decker Hemlock Henry Jacobi Abbotsford S. R. Davis. Granton Farmers' Cheese Co. Dorchester Distelhorst & Co. Dorchester
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CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co. Albertville Kelley & Cass Liddell Snyder Bros. Bloomer H. D. Cummings Bloomer Fagen Bros. Stanley CLARK COUNTY— Ira Somerfeld. Colby Steinwand Cheese Co. Colby L. A. Hirsh Lynn Otto Decker Hemlock Henry Jacobi Abbotsford S. R. Davis. Granton Farmers' Cheese Co. Dorchester Distelhorst & Co. Dorchester Distelhorst & Co. Dorchester Dorchester Cheese Co. Dorchester Sherman Dairy Co. Veefkind Delamater & Palms Green Woole S. D. Gibson. Wilcox
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co. Albertville Kelley & Cass Liddell Snyder Bros. Bloomer H. D. Cummings Bloomer Fagen Bros. Stanley CLARK COUNTY— Ira Somerfeld. Colby Steinwand Cheese Co. Colby L. A. Hirsh Lynn Otto Decker Hemlock Henry Jacobi Abbotsford S. R. Davis. Granton Farmers' Cheese Co. Dorchester Distelhorst & Co. Dorchester Dorchester Cheese Co. Dorchester Sherman Dairy Co. Veefkind Delamater & Palms Greenwood Herman Laabs Greenwood Herman Labs Greenwood Holzhauser Cheese Factory Reseburg
CHIPPEWA COUNTY— S. E. Cass Anson A. Butscher Boyd F. L. Monroe Cadott Snyder Bros. Cook's Valley H. G. St. Louis Cook's Valley John Bates Eagle Point Albertville Butter and Cheese Co. Albertville Kelley & Cass Liddell Snyder Bros. Bloomer H. D. Cummings Bloomer Fagen Bros. Stanley CLARK COUNTY— Ira Somerfeld. Colby Steinwand Cheese Co. Colby L. A. Hirsh Lynn Otto Decker Hemlock Henry Jacobi Abbotsford S. R. Davis. Granton Farmers' Cheese Co. Dorchester Distelhorst & Co. Dorchester Distelhorst & Co. Dorchester Dorchester Cheese Co. Dorchester Sherman Dairy Co. Veefkind Delamater & Palms Green Woole S. D. Gibson. Wilcox

COLUMBIA COUNTY—	
Chivers & Kuse	Columbus
G. W. Scott	
E. E. Brigham	Columbus
Lodi Creamery Co	
Simons & Hutson	
M. W. Spear	
Wyocena Cheese Factory	
A. J. Baker	
L. H. Dates	
H. R. Moldenhauer & Bro F. Grossman	
Port Hope Butter and Cheese Association	
John Woolsey	
Fred. Manthy	
R. J. Russell	
Gust. Schurber	
CRAWFORD COUNTY—	
Coldsprings Cheese Co	
B. Opprecht	
Kingsbury & PattersonPr	
Gay's Mills Creamery Co	Gay's Mills
DANE COUNTY—	
Myrland & Co	Primrose
G. S. Enger & Co.	
C. England & Co	
Holland & Co	Primrose
Wallen & Co	\dots Primrose
Standard Cheese Co	
Lyle Cheese Factory	
Thomas Kundred	
Connor Co.	
Basco Cheese Factory Association	
Montrose Cheese Factory Association	Montrose
Primrose Cheese Factory Association	Montrose
Engen Cheese Factory	Forward
Perry Center Cheese Factory	Forward
Pleasant Valley Cheese Factory	
Perry Southern Cheese Factory	
Kelliher Cheese Factory	
M. Michelson Cheese Factory	
P. Lynch Cheese Factory	Elvers
	Elvers
Sunnyside Cheese Factory	Perry
Perry Cheese Factory	
North Perry Cheese Factory	
Indian Hill Cheese Factory	
Spring Valley Cheese Factory	
Allengrove Cheese Factory	
Old Mount moreb Cheese Factory	Mount Horeh
Rangs	
German Valley	
Erbey	.Mount Horeb
Diamond Cheese Factory	Black Earth
Vernon Cheese Factory	Black Earth
Schied Cheese Factory	Blue Mounds
Barber Cheese Co	Blue Mounds
South Blue Mounds. Digitized b	Blue Mounds
C. Zwicky	Belleville

DANE COUNTY-Continued.	
J. VoegleyBelleville	
H. KlassieBelleville	
E. Schaller	
Town Hall Factory Mount Vernon	
Fasher Factory	
Connor Factory	
Beaver Creek Cheese CoArnsburg	
Basco Cheese CoBasco	
DODGE COUNTY—	
Town Line Dairy AssociationLowell	
Indian Garden Cheese Factory	
Shields Butter and Cheese CoRichwood	
Home Cheese FactoryRichwood	
Baeler Bros	
Orth Bros	
Second Ward Cheese Factory	
Maple Grove Cheese Factory	
Rock River Cheese Factory	
Northwestern Cheese Factory	
Koepsel Cheese FactoryMayville	
Fred. Baertschy Cheese Factory	
Portland Cheese and Butter Association	
Leader Cneese and Butter Association	
F. Sette (3)	
H. Billgran (4)	
Chas HenpleinIron Ridge	
Imobersteg BrosKnowles	
Boehmer & Meyer Cheese and CreameryLomira	
Jonely Bros. Cheese and CreameryLomira	•
Swartz & Hoffman Cheese and CreameryLomira Jonely Bros. Cheese and CreameryBrownsville	
J. N. Wigginton	
Martin Huebelien Fox Lake	
Amel Dermel	,
Herman LefeldTheresa	
Michael Murphy	
Lime Ledge Cheese Factory	
Mike Fitzgerald (4)	
John Peters Cheese FactoryNeoshs	
John Ivey Cheese Factory	
F. O. Schujahn Cheese Factory	•
Thomas ('armody Cheese Factory	
Amiel Kunzi Cheese FactoryAlderley	
Amiel Winkelman Cheese Factory	
Ashippun Cheese CoAshippur	ı
North Star Cheese Co	1
Cherry Hill Cheese CoAshippur	1
Sugar Island Cheese AssociationAshippur	1
Lime Ledge Cheese Association	ı
J. T. PetersWoodland	1
Chris. Gassner	
Peter Peters	i
Dukeschien Cheese FactoryJuneau	1
Shaw Creek Cheese FactoryBeaver Dan	n
Chris. KohliKekoske	е
Thomas Cheese FactoryBeaver Dan	a
Emil RollKekoske	e
Rock Cheese FactoryHerman	1
Chas. Christian	1
Herman Koepsel, JrHerman	1
Jos. Aufdermann	4



ъ.	ADD GOLLAND G	
DО	DDGE COUNTY—Continued.	
	Christian IndermuehlOa	k Grove
	Westside FactoryOa	
	Oak Grove Village FactoryOa	
	Union Cheese Factory CoHu	
	Ryder Cheese CoHu	stisford
	F. Thirike & CoHu	
	White Oak Cneese Factory CoHu	stisford
	August Koehler & CoHu	stisford
	Gust. Garcke & CoHu	
	John Jossi	
	C. T. NehlsHu	
	Gottlieb Klossner	
	Max RadloffHu	
	J. F. Leitzke & CoHu	
	Wege & CoHu	
	J. E. DornfeldHu	
	Ernest Bramer	
	Newton Cheese FactoryHu	
	Rubicon River FactoryIIu	stisford
	Walsh & Laffy (2)	Clyman
	P. Callaghan	Clyman
	Clyman Center	Clyman
	Orth Bros.	
	S. Schneider	
	Martin Volmar	
	Union Cheese Factory	
	Essmann Cheese Factory	
	Essmann Cheese Factory	
	Dukeschein Cheese Factory	
	Prairie View Cheese FactoryBeav	
	Calamas Cheese FactoryBeav	
	Westford Cheese FactoryBeav	er Dam
	Lake Shore Inc. Cheese FactoryBeav	
	Rock River	Horicon
•	Gottlieb Gassner	Horicon
	White Oak	Horicon
	Brown's Corners	
	Burnet German Swiss Cheese Factory	Ioricon
	Jacob Baehler Minnesota J	unction
	H. R. Holdenhauer (5)	ebanon
	E. Briesementer	
	Jacob Jossi	
	Indermuhle Bros. (2)	
	Charles Miller	
	Chris. Kohli, Sr	
	North Elba Cheese Factory	
	Northwest Cheese Factory	
	Chas. Reichow Factory	Rubicon
DOO	OR COUNTY—	
	R. F. BucholsFor	estville
	August BusseFor	estville
	Wm. Stoneman Bros. CoFor	
	H. J. Teske.	
	Erskine & LemineJacks	
	Weiterman & Vokes	
	A. Weltse	
	Wenzel BundaSist	
	A. AndersonE	
	Torger Torgerson	
	Albert IckeEllis	
	Mathew Nygard	Vignes



DOOR COUNTY-Continued.
Chas. JenquinneLittle Sturgeon
Jos. Neusse Sturgeon Bay
Emil LimpertSturgeon Bay
F. A. KruegerSawyer Alec. PierreNamur
Evrard Bros
G. Guth & Son
Ernst Haegele
Herman Schussell
Pierre Verlee CoBrussels
John HenquinetGardner
Madoche & McDermottSolona
John Shugton Stokes
William StonemanStokes
Herman Nimus
Wm. KraegerStokes
John Barrman
Wm. M. Goetz
Herman NiniceTornado
Conrad GuthStevenson's Pier
Chas. BassfordSevastopol
L. M. WashburnSevastopol
John W. WorachekEgg Harbor
Chas. Jess & Co
B. J. AndersonDetroit Harbor
DUNN COUNTY—
Downing Manufacturing Co. Cheese FactoryDowning
Rusk Co-op. Creamery CoRusk
L. E. SchuareRed Cedar
EAU CLAIRE COUNTY—
EAU CLAIRE COUNTY— Garfield Cheese Factory
Garfield Cheese Factory
Garfield Cheese Factory
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca
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Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Vioia
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs
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Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender. Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek
Garfield Cheese Factory Augusta Seidel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender. Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender. Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Milles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Eagle Cheese Factory Balmoral Fred. Bender Basswood H. J. Noyes Basswood
Garfield Cheese Factory Augusta Seidel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Eagle Cheese Factory Balmoral Fed. Bender Basswood H. J. Noyes Basswood John Donner Basswood
Garfield Cheese Factory Augusta Seidel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Twin Bluffs Waddell & Flamme Twin Bluffs James Waiden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Fred. Bender Basswood H. J. Noyes Basswood John Donner Basswood Charles Berritt Tavera
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Fred. Bender Basswood H. J. Noyes Basswood John Donner Basswood Charles Berritt Tavera Union Factory Keyesville
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender. Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Fred. Bender Basswood H. J. Noyes Basswood John Donner Basswood Charles Berritt Tavera Union Factory Keyesville Arnold Yenenbeck Bear Valley
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender. Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Eagle Cheese Factory Balmoral Fred. Bender Basswood H. J. Noyes Basswood Ohn Donner Basswood Charles Berritt Tavera Union Factory Keyesville <t< td=""></t<>
Garfield Cheese Factory Augusta Seldel Bros. Augusta Star Butter and Cheese Factory Augusta Beaver Creek Co. Amesburg Thomas Johnston Boaz F. J. Bender. Boaz C. B. Cornwall Boaz C. W. Davis Ithaca Henry Schaup Neptune Maple Grove Factory Viola C. L. Stausburgh Loyal Hull Bros. Viola G. E. Miles Twin Bluffs Waddell & Flamme Twin Bluffs James Walden Yuba or Hub City C. B. Cornwall Yuba Westford Cheese Factory Cazenovia G. E. Miller Sextonville J. P. Fulmer Byrd's Creek Buck Horn Cheese Factory Balmoral Fred. Bender Basswood H. J. Noyes Basswood John Donner Basswood Charles Berritt Tavera Union Factory Keyesville Arnold Yenenbeck Bear Valley

FONI	DU LAC COUNTY—
(entral Creamery CoFarmer
I	Seaver Creek Cheese FactoryArmstrong
I	. E. McFarlenArmstrong
	Ir. Rice
	ohn MorganArmstrong
ī	entley Van BlarconNew Prospect
•	amon Cilham
	ames Gilboy
	J. RomainDundee
	wicky & SchmidtVandyne
	lbert SchmidtVandyne
	. Pfeiffer & SonVandyne
C	. SchillerVandyne
A	ug. HebenerNew Fane
J	ohn AupperleNew Fane
	chle Bros
	Perrin Bros Mount Calvary
	lathias Wagner
	oseph WagnerMount Calvary
	. Heustegen
	J. KelleyEden
	eo. Gorjde Eden
	P. KelloggEden
	C. O'BrienEden
	[. F. Sacket
	. Pieper & Sons
1	ennis DaleyWaucoaster
F	chle BrosSummit Station
J	. W. Dillon
	I. M. DillonDotyville
	aldorf Carty Leonard and heirs
	Voolfgram (W. W.)
	ohn BastDotyville
	A. Galloway
	imon Steffes
	eorge Hinn
	F. G. Wernicke
	ohlman
	. Leonard, JrBanner
	rank McKinneyKirkwood
	eith BrothersKirkwood
	heodore Fick
	ohn KrebschJohnsburg
	ewis LoehrJohnsburg
1	eter WeinlissJohnsburg
•	has. Fleishmann
J	ohn WelchlieElmore
	rth Bros Elmore
	I. Pfenenger
	lenry Sacket
	eter AmmonBrandon
	eter Stephany
	. II. Koepka
1	eter WeinrelsPeebles
	'. Goessling
	. SteffesSt. Cloud
F	Ienry BlonienSt. Cloud
	ohn KohlmanSt. Cloud
	. M. KnowelsSt. Cloud
I	errien Bros
N	fichael PikartMalone
1	fatt Moersch
1	f. J. MichaelsCalumet Harbor





FOND DU LAC COUNTY-Continued.	
Farmers' Co	Ladoga
Ennisson Bros	Rogersville
Mrs. Brayton	Fond du Lac
Amei Warnkee	
M. Michels Butter and Cheese Co	Calumetville
Gulig Bros	
Ennisson Bros	
H. Estabrooks	Fond du Lac
Jacob Stellabacker	Byron
Jonely	" Byron
M. Fleischmann Cheese Co	Saint Kellian
Feeber Bros	New Prospect
E. Korb	Marytown
Jos. Statz	Lamartine
J. H. Quick	
C. S. Nash	Lamartine
Bacont Roberts	
C. A. Atwood	
James Erwin	
L. A. Stratz	
GRANT COUNTY-	
Moore Bros	
Blake's Prairie Cheese Factory	
Witcher's Cheese Factory	Platteville
Lima Cheese Factory	
Swiss Cheese Factory	
Oak Grove Factory	
Wm. Warne	
Platte Cheese Factory	
Ira W. Griswold	
Jacob Regez	
Castle Rock Dairy Association	
Fennimore Branch Dairy Association	
Wanek & Dieter Co	
Marion Cheese Factory	
Richwood Cheese Factory	
Sander's Creek Cheese Factory	
Oak Ridge Cheese Factory	
Boscobel Factory	
H. J. Noyes	
Muscoda Butter and Cheese Association	
Orth, Berau & Lampher	
Oak Grove Cheese Factory	
Buckhorn Cheese Factory (Richland Co.)	Muscoda
·Walnut Grove Cheese Factory	Muscoda
Badge City Cheese Factory	
Dimock Cheese Factory (Iowa Co.)	
Star A Star Cheese Factory (Iowa Co.)	
Carl Sohlman	
Homer Cheese Co.	
A. R. Allen	
	The state of the s
GREEN COUNTY—	
Flanagan Cheese Factory	Farmer's Grove
Blumer & Co	
Anton NyCroten	
H. Wild	Farmer's Grove
John Barry	
Thos. Duerst	
Mrs. W. Monteith	Farmer's Grove
11 Dairy.	Digitized by GOO
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GREEN COUNTY-Continued.	
M. S. CaseyFarmer's Grove	
James Scott	
Pat McHughFarmer's Grove	
Syver Moen	
John Conway	
Christ BlellerFarmer's Grove	
Spring Valley Cheese CoNew Glarus	
Kubley Bros New Glarus	
Poplar Grove Cheese CoNew Glarus	
Zimmerman Cheese Manufacturing CoNew Glarus	
Henry Aultman Cheese Co	
New Glarus Cheese Manufacturing Co	
Deurst Bros. Cheese Co	
Ward Cheese Factory	
Huster Cheese Co	
Wm. Engler	
J. N. Babler New Glarus	
J. L. StreussyNew Glarus	
Matt. ElmerNew Glarus	
Fred. Legler & CoNew Glarus	
Paul KundertNew Glarus	
David Hefty New Glarus	
John LeglerNew Glarus	
Samuel Christian	
Pedee Cheese Factory	
James Alexander	
A. Pulman	
Farmers' Stock CoPedee	
Zweifel Bros)
Herman GeisePedee	
Jos. MathersPedee	
Jacob KundertJordan	
J. Voegeli	
Abraham StaffacherJordan	
Matt. Hoffmeister	
Baltz SchindlerJordan	
Jacob GreenwaldJordan	
C. L. BeyerhofferJordan	ŀ
Barbara ElmerJordan	
Gibbon & CoJordan	
Twin Grove Cheese CoTwin Grove	
J. M. BerryTwin Grove	
J. C. Ula & Co	
Saw Mill Cheese Factory	
Hoosher's Grove Farmers' Co	
Jacob Karlen	
Mary A. DinanCadis	
Henry ElmerCadia	
Geo. Lawrence	3
Fred Blum Cheese CoMonticello	
Rhimer & Clark Monticelle)
D. Stauffacher	,
Wittenwyler & Berry Cheese Co	
Rudy Freitag	
Jacob Stauffer	
Martin Geigel	
J. & J. MartyMonticelle	
Digitized by GOOGIE	

3RE	EEN COUNTY—Continued.	
	Wm. Heines	nticello
	M. Moser	
	J. Stillter	
	H. Dayer	.Oakiey
	Farmers' Grove Cheese Factory	
	Marks Hoesly	
	Fred Kundert	Stowart
	Ezra Wild	
	Vinger	
	Nyfrater	Stewart
	Jacob Hoesley	Stewart
	Jacob Blum	Stewart
	Nels Nessa	
	T. Hermonson	
	Chris. Journeby	
	Arne A. Barger	Stewart
	Marianna Strahm	
	Hans Emberson	
	Henry Legler	
	G. F. Lehnherr	
	Exeter Cheese Co.	
	Ross Cheese Factory Co	Dayton
	Casper Zwickey	Dayton
	Henry Klossy	Dayton
	Matt Schmid	Dayton
	Henry Freitag	
•	Gottlieb Lehnherr	Dayton
	Jost Voegley	Dayton
	Henry Rusti	tintown
	Clisey Factory Mari	intown
	Munger FactoryBı	HOODELL
	Centre Factory	rodhead
	Zweifel Bros	nadhead
	August Crause	odbead
	H. C. Atherton	
	August ZenlowBı	rodhead
	P. Wohlwend	Juda
	Jos. Huber & Co	
	John Ruble	.Clarno
	F. Lichtenwaller	.Clarno
	Eugene White	. Clarno
	David Karlen	Clarno
	Wm. Beckman, Sr	
	Geo. Pfiffer	Clarno
	Samuel Raymer	Clarno
	Henry Kleckner	.Clarno
	Austin Davis	Clarno
	David Haren	.Clarno
	Otis Schaffer	.Clarno
	Polk Cheese Factory	Polk
	John Schultz	
	F. Grunert & Co	Monroe
	Jacob Regez	Monroe
	Jacob Karlen & Son	
	John C. Wenger & Co	Monroe
	Chris. Stauffer John Boos	моргос Моргос
	Roth & Stauffacher Digitized by	Monroe
	Digitized by	City(

GRI	SEN COUNTY—Continued.	
	John A. Fraeser	
	John G. Faeser	
	John Bantell	. Monroe
	Anton Tochtermann	. Monroe
	R. Benkert	
	Joshua Klassy	
	J. Speich	. Albany
	Fred Kundert	.Albany
	Stauffacher Bros	
	Conrad Elmer	. Albany
	Fred Stauffacher	. Alband
	Chris. Elmer	.Albany
	Jacob Reiman	. Albany
_	Fred Speich	ylvester
	Chris. Marti	.Albany
	Sylvester Cheese Factory	ylvester
	J. Speich	ylvester
	E. & J. Stauffacher	Sylvester
	Peter Stauffacher	Sylvester
	J. J. Stauffacher	Sylvester
	M. W. Sylvester	
	Adam Luchsinger	Sylvester
	James Martin	Sylvester
	S. H. Haman	
	M. M. Hulbert	
	A. Edwards	
	David ManiBro	
	John LeidermanBro	
	Henry JohnsonBro	
	Jacob TemplerBr	
	Jos. AckermanBr	
	Daniel Keen	
	G. H. & W. A. Pengra	
	George Dawson	
	S. Hutzel	
	J. W. Blackford	
	·F. F. Matzke	
	A. Preston	
	Davis	
	Frisbee	
	Wm. Matzke	
	John Deininger	
	H. Babler	
	E. South	
	M. T. Gapen	
	John Pfund	
	Thieler Bros	
	Jas. Weismiller	lonticello
	J. C. Marty (2)	lonticello
	Karlen Bros	Conticello
	J. H. Theiler	ion ticello
	Fred. Blum. Jr	ionticello
	M. Beddlingmeyer	
	James Dolan	Monroe
	M. Zumbrunner	. моцгое
	G. Woeffler	Monroe
	David Hefty	Monroe
	John Benkert	Monne
	Andrew Harper	radurde Kontlaalla
	John Wittenvogler	fonticello
	Mel. Schiller	Monticello
	N. & H. Freitag	Philesin

GREEN COUNTY-Continued,	
John Moritz	
G. Wittwer	
Warner Bloom	
John Becker	
Jos. SchwarzenbergerBrooklyn	
S. Freitag	
Wm. Crouse. Sr	
GREEN LAKE COUNTY—	
J. J. ClarkBerlin	
Town Line Cheese FactoryBerlin	
Page Bros. Berlin	
Seneca Cheese Factory Berlin	
Black Creek Cheese FactorySt. Marie	
Hunter FactoryStandart	
IOWA CGUNTY—	
Big Springs Union Mills	
Union Mills Cheese Factory Union Mills	
Hollenbeck Cheese Co	
Bigelow Cheese Factory	
Middlebury Cheese CoMiddlebury	
Theobold Cheese Co	
Adamsoiler Cheese Co	
Jacob Urben	
John Riker	
Walter Thomas	
John Ingold	
Robert Scheid	
Zim. Zimmerman	
John Havley	
Archer Campbell	
John J. Morris	
J. M. OstranderWaldwick	
Waldwick	
Dorman	
Uren	
Oak Park Cheese Co Mineral Point	
Buck Grove Cheese Factory Co Mineral Point	
Barrelton Cheese Factory Co Mineral Point	
Forest Glen Cheese Factory Co Mineral Point	
Laverly Cheese Factory Co	
Jewell's Cheese Factory Co Mineral Point	
Rosedale Cheese Factory Co	
Mount Hope Mineral Point	
G. Klootgla Mineral Point	
E. C. Spooner	
Jacob Roth (2) Mineral Point	
John Deitrich Mineral Point	
W. Hastings Mineral Point	
Henry Tucker Mineral Point	
Schindler Cheese Factory	
Edward Berg's Cheese Factory	
Brager Cheese Factory	
Rettrum Cheese Factory	
High Point Factory	
Wall Cheese Factory	
L. E. Jones	
E. Zweigel	
Myron McIntyre	
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104	VA COUNTY—Continued.	
	H. O. Delaney	
	H. Hansalter	Avoca
	Frank Stork	Avoca
	Star Factory	
	Mound Valley	Barneveld
,	Mitchell & Griffiths	
	Blue Grass Valley Cheese Factory	
	Rockwell Mills	
	Barneveld Creamery & Factory	Barneveld
	Jones Valley Cheese Factory	
	Scheid's Cheese Factory	
	Ridgeway Cheese Factory	
	Garrison Grove Cheese Factory	
	Mill Creek Cheese Factory	
	Crystal Spring Cheese Factory	
	Arena Cheese Factory	
	John G. Vogal	
	Theodore Hottman	
	Mill Creek Cheese Factory	Arena
	8. W. Wigming	
	Cold Spring Cheese Factory	Jonesdale
	Jonesdale Cheese Factory	
	Banner Cheese Factory	
	Glen Cheese Factory Co	Hollandale
	Long Valley Cheese Co	Hollandale
	Bonner Cheese Co	Hollandala
	Pecatonica Cheese Co	
	H. Ballerud Cheese Co	
	River Forks Cheese Factory	
	John Ashelman Cheese Factory	
	John Silberger Cheese Factory	Hollandale
	J. L. Leutenegger Cheese Factory	Hollandale
	Casper Meyer Cheese Factory	Hollandale
	Jacob Leggea Cheese Factory	Hollandale
	North Hill Cheese Factory	
	J. Regez	Rewey
	J. Regez No. 7 Cheese Factory	Linden
	Thomas & Co	Linden
	Jacob Regez Cheese Factory (3)	
	The Johnston Cheese Co	
	Drybone Cheese Factory	Drybone
	Pine Knob Cheese Factory	Pine Knob
	Hyde's Mill Cheese Factory	
	North Hill Cheese Factory	
	K. Knutson	
	Sandy Rock Cheese Factory	
	Rosendale Cheese Factory	Powell
JAC	KSON COUNTY—	
	Garfield Cheese Factory Ass'n	Price
	Houghtonburg Cheese Factory	
	W. G. Hyslop	Alma Center
	NEBRON COLINEY	
JEF	FERSON COUNTY—	Watarta
	Ames Factory	watertown
	Globe Cheese Factory	Watertown
	Emmet Grove Cheese Factory	
	Rock Cheese Factory	Watertown
	John Stangler Cheese Factory	Watertown
	G. Kuenzi Cheese Factory	
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		Digitized by COOTIC

JEFFERSON COUNTY-Continued.
County Line Cheese Factory
Gopher Hill Cheese Factory
Main Street Cheese Factory
Hancock Cheese FactoryWatertown
Sam. Kuenzi Cheese Factory
Schlieve Factory
Shields' Butter and Cheese Factory
Cold Spring Butter and Cheese FactoryWaterloo
Cold Spring Dutter and Cheese Pactory
JUNEAU COUNTY-
Warren, Kimball & Co
H. L. Ashdown Elroy
Farmers' Company Elroy
J. K. Rowell
Twin Bluff Cheese and Butter Co
Lone Rock Cheese and Butter Co
H. E. Elmer Cheese and Butter Co
Lone Rock Cheese Co
J. W. Cross
Geo. Winsor North Valley Creamery
John Steiner Mauston
August Steiner Mauston
Frank Steiner
J. W. Post
James Larson
John Froelich
*
KENOSHA COUNTY—
Nick. Spartz
-
KEWAUNEE COUNTY—
Jos. Dellain
Jos. AdamsCasco
F. W. Ouradnick
A. Kirchman Rio Creek
Wenzel Slab
A. & J. RipleySlovan
Jos. F. AdamsSlovan
Fred. Plinke
Joseph Werg
Chas. Rubens
Eugene Naze
Victor Braus
Brussels Farmers' Co
G. PaulKodan
W. UllspergerKodan
F. GeischowKodan
Farmers' Cheese Co Lincoln
Armand NoelLincoin
Jos. DeliainLincoln
P. J. WalickaKrok
Geo. Bankall Thiry Daems
Jos. Dellain Thiry Daems
Frank StorzerCurran
Geo. KozinaStangelville
Albert KutsmacherStangelville
Bach, Kiewig & Poser CoCarlton
Frank A. Plansky
Carlton Farmers' Dairy Ass'n
John WaegliCarlton
Anton BourilCarlton
A. W. Teske
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KE	WAUNEE COUNTY-Continued.
	Andrew Roth
	Peter Altmeyer
	Albert KretsmacherEllisville
	Jos. Roth Ellisville
	Bernhart Lost Ellisville
	Matt Schlis Ellisville Andrew Mahlek Pilsen
	Jacob GaschePilsen
	Vogal Bros
	Chas. RubensDuvall
	D. Boulanger
	Barrett & SonDuvall
	M. MuellerNorman
	W. Uisperger
	John SippleNorman
	Wenzel Sipple
	Frank A. Plausky
	Fred. Walter, Jr
	Geo. Paul
	John Bush
	J. G. Paolat
	Kozina Factory Bolt
	P. LyonsBolt
	John GosinLuxembourg
	Vick Bongean
	Halvers' Factory
	Fred. Heavers
	Geo. Kuekel
	Jos. Filz
	Victor Goodsoul
	Alvan Stahl
	August Noel
	John Gullickson
	F. L. Walter
LA	CROSSE—
	Casper Andregg (Greenfield Cheese Factory)Sigel
	Bangor Swiss Cheese CoBangor
	Eathan Roberts Burr Oak
LA	FAYETTE COUNTY-
	J. P. Rockwell & CoSouth Wayne
	O. B. Eilis South Wayne
	Johnson Cheese FactorySouth Wayne
	S. Murphy & CoSouth Wayne
	Hall Cheese FactorySouth Wayne
	Graham Cheese FactorySouth Wayne
	Truman Cheese FactoryTruman
	Success Cheese FactoryTruman
	Light House Cheese FactoryTruman
	Union Cheese Factory
	Palace Cheese & Butter Co
	O'Connor Cheese Factory Darlington Otter Creek Cheese Factory Darlington
	Lamont Central Cheese Factory
	Fraternal Cheese Factory
	A. Hershbrunner
	Alex. Rolle
	Thos. Vickers
	Fred. Leicht
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т .	FAYETTE COUNTY-Continued.	
LA	P. F. McQuald	Darlington
	Yellowstone Factory	
	Lyons Factory	
	McClintock Factory	
	John Dredinger	
	Jake Hahlen	Argyle
	John Theller	
	Jake Burkhart	
	Fred. Toman	
	Fred. Bengrigger	
	Henry Peterson	
	Emil Armititz	
	Samuel Ubert	
	Peter Olson	Argyle
	Chris. Marty	Argyle
	Samuel Armititz	Argyle
	Puddle Dock Cheese Factory	Argyle
	Wm. Carey	Argyle
	J. S. Wells	
	A. S. Hansen	Woodford
	Miller Cheese Factory	Woodford
	Shellitts Factory	
	Cook Factory	
	Conley Factory	
	Olsen Factory	Favette
	Springbrook	
	Cherry Branch	
	Wiota Factory	
	Scisson Factory	Wiota
	Sposer Factory	Wiota
	E. Regez	
	J. Brunwald	
	Bokkard	
	J. Marty E	
	Co-operative E	
	Stromann Cheese Co	
	East Lamont Cheese Co	
	M. Hefty Cheese Co	
	Sanderson Cheese Co.	
	Lamont Central Cheese Co	
	Dake's Prairie	Calamine
	Mount Pleasant	
	Peter Meich	
	Willow Springs	
	Defiance No. 11 Factory	Deflance
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LA	ANGLADE COUNTY—	
	W. J. Mattek	
	Albert Borth	
	Rooling Cheese Manufacturing Co	\dots Elmhurst
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MA	ANITOWOC COUNTY—	
	John Hertel	
	Q. A. Danforth	
	F. Simers	
	M. Wideman	
	Adolph Milhaus	
	C. M. Krueger	
	E. C. Schwanke	
	Aug. A. Schley	
	Henry H. Meyer	Reedsville
	Wm. Huese	Reedsville
	Digit	ized by 🕻 OO

ANITOWOC COUNTY-Continued.	
Albert Beilke	
Chas. Dickert	g
John Schmelter	g
Fred. Bauch Reedsbur Robert Manke Reedsbur	g
Wm. Fedding	
H. Bargenbruch	
Lewis Keelhurst Newtonbur	
Albert WegerNewtonbur	·g
Jacob BehringerNewtonbur	g
Martin RhodeNewtonbur	g
H. Schulz	
J. D. Nate	
Wm. Meyers	
Maltzke Maple Grov	
Moedke Junker Maple Grov	7e
F. Britzel Maple Grov	7e
William RodewaldTimoth	
Robert Nauman	
Herman Ackerman	
Henry Meyer	
Chas. F. Meinert)C
Henry Pluess	oc
J. MallmannSt. Nazian	ız
Herm. Specht	
Chas. Lutzky	
Wm. Karstaedt	
Chas. Weinfarther	
Aug. Fehrman	
Wm. England	
Chas. Fleutge	
Fred. Wnde	
Adolph ZeddiesMichico	
Chas. Mendenwald	
Fred. Fetter	
H. Pleus	
Herman RischLarrabe	
Frank Fenner & BroLarrabe	
Peter Griemer East Gibso	
Fred. WildeShot	
Robert WaumannShot	
Anton Natjonitz Shot Jos. Haverlick Shot	
Gibson Farmers' Co	
Herman Schroeder	
Jos. Froelich	18
Fred. G. MeyerSchool Hi	
H. BarneubrushRut	
E. Wehausen	
J. Kasbaum	
Louis Voight Louis' Corner	
Frank F. Thielke Louis' Corner	
Aug. Schleunes	ıе
Joseph Rappel Clark's Mil	
Rockland Dairy Ass'n	
Chas. Swerting	ig le
M. Sabel Clark's Mil) -
Digitized by GOOSTC	-

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MANITOWOC COUNTY—Continued.	
Victor VogleRange	
Ole E. Gigstad	
Wm. BusheE	
John B. Johnson	
Farmers' Dairy Ass'n	
Strangel & MawhalenTisch	
Herm. Olm	
Chas. Schwalbe	
Wm. Buscher	
Albert Karsted	
F. H. Wageuknecht	
William Zillman	
James Smith	
W. A. Koch	
A. P. Erdmann	
Albert Svacina	
Wm. Damm	
J. J. Havlichek Francis C	
Francis Creek Farmers' Cheese Co Francis C	
John Steber Francis C	
P. C. Bleiser Francis C	reek
Kellner & PolifkaKellners	
Michael Sobel	
S. MazaueeKellners	
R. C. Behnke	
Peter BlaserKing's Br	
J. B. Johnson	
Mike Kelley	
Henry Hinges	
Oscar Barthel	
Jos. Schuber ·	
Herman SpechtBr	
Adolph KlemmBr	
H. WilharmsNorth	neim
H. StrodthoffNorth	
Gustave Klemm Two Ri	
Chas. Fleutje Two Ri	
Henry Redker Two Ri	vers
Robert Newman Two Ri	
- Klessig BrosSt. Wer	ıdell
·	
MARATHON COUNTY—	
Fred. Michler	
Herman HahnNutter	
Henry Jacobi	
Jacob KeehlAbbotts	
Ferdinand OlmRozell	
Joseph Frane	
Brighton Cheese Factory	
Wm. B. McPhersonSpe	
Anton LogSte	
Ed. O. Pleisch	
Andrew Flaig	
Adolph Hintze Hogs	
Julius KodiMcMi	llan
•	
MADOVINORS CONTINUE	
MARQUETTE COUNTY—	
Neshkoro Cheese and Butter Co	
Lake View Creamery CoBriggsv	ille

MONROE COUNTY— Valley Junction Cheese Factory Valley Junction Martin Pfyle St. Mary's	MILWAUKEE COUNTY— John Mehl
Jos. Brooks	Valley Junction Cheese Factory Valley Junction Martin Pfyle St. Mary's L. J. Schubert Clifton E. Kimball Glendale J. K. Powell Oakdale Kokon Anderson Melvina Fred. Luther Norwalk
School Section Cheese Factory Decorate Warner & Moody Brookside R. H. Birr (Butter and Cheese) Morgan John Schrader Linwood	Jos. BrooksPeshtigo
Wasson & Cannon Dale Albert Drews Dale Birdell Nelson Dale P. Miller Dale H. Boyer Dale A. Nelson Dale A. Brickman Dale C. Holzschuh & Griener Erb P. Zonne Appleton D. W. Dean & Co Appleton Nick Ilass Appleton Nick Simon Appleton W. H. Verity Appleton A. L. Murphy Hortonville P. Oik Hortonville Chas. Westgate Hortonville Chas. Schanck Hortonville Chas. Schanck Hortonville Wilton Black Creek Missling Bros. Black Creek Missling Bros. Black Creek Albert Carter Black Creek Albert Carter Black Creek D. S. Crosby & Co. (3) Seymour A. W. Reitz Seymour A. W. Reitz Seymour A. W. Reitz Seymour D	School Section Cheese Factory
P. Miller Dale H. Boyer Dale A. Nelson Dale A. Brickman Dale C. Holzschuh & Griener Erb P. Zonne Appleton D. W. Dean & Co Appleton Nick Hass Appleton Nick Simon Appleton A. L. Werity Appleton A. L. Murphy Hortonville P. Oik Hortonville Chas. Westgate Hortonville Chas. Westgate Hortonville Chas. Westgate Hortonville C. Wilton Black Creek Missling Bros. Black Creek W. N. Bergman Black Creek G. Schinkee Black Creek Albert Carter Black Creek E. P. Strassburger Black Creek Fred. Lachal Black Creek D. S. Crosby & Co. (3) Seymour A. W. Reitz Seymour A. W. Reitz Seymour Peter Dooley Shlocton Frank Henry Shlocton	Wasson & Cannon Dale Albert Drews Dale
P. Zonne Appleton D. W. Dean & Co. Appleton Nick Hass Appleton Nick. Simon Appleton W. H. Verity Appleton A. L. Murphy Hortonville P. Oik Hortonville M. L. O'Reilly Hortonville Chas. Westgate Hortonville Chas. Schanck Hortonville C. Wilton Black Creek Missilng Bros Black Creek W. N. Bergman Black Creek G. Schinkee Black Creek Albert Carter Black Creek E. P. Strassburger Black Creek Fred. Lachal Black Creek D. S. Crosby & Co. (3) Seymour A. W. Reitz Seymour A. W. Reitz Seymour H. C. Burmeister Seymour Peter Dooley Shiocton Frank Henry Shiocton C. W. Staeffer Wittlin P. G. Berry Mackville J. H. Steffen Mackville C. Freioft <td< td=""><td>P. Miller Dale H. Boyer Dale A. Nelson Dale A. Brickman Dale</td></td<>	P. Miller Dale H. Boyer Dale A. Nelson Dale A. Brickman Dale
W. H. Verity Appleton A. L. Murphy Hortonville P. Oik Hortonville M. L. O'Reilly Hortonville Chas. Westgate Hortonville Chas. Schanck Hortonville C Wilton Black Creek Missling Bros. Black Creek W. N. Bergman Black Creek G. Schinkee Black Creek Albert Carter Black Creek E. P. Strassburger Black Creek Fred. Lachal Black Creek D. S. Crosby & Co. (3) Seymour Ed. Kliest Seymour Anton Kolb Seymour A. W. Reitz Seymour Peter Dooley Shlocton Frank Henry Shlocton C. W. Staeffer Wittlin P. G. Berry Mackville J. H. Steffen Mackville C. Freioff Mackville Jos. Schmidt Mackville	P. Zonne Appleton D. W. Dean & Co Appleton Nick Hass Appleton
Chas. Schanck Hortonville C. Wilton Black Creek Missling Bros. Black Creek W. N. Bergman Black Creek G. Schinkee Black Creek Albert Carter Black Creek E. P. Strassburger Black Creek Fred. Lachal Black Creek D. S. Crosby & Co. (3) Seymour Ed. Kliest Seymour Anton Kolb Seymour A. W. Reitz Seymour Peter Dooley Shlocton Frank Henry Shlocton C. W. Staeffer Wittlin P. G. Berry Mackville J. H. Steffen Mackville C. Freioff Mackville Jos. Schmidt Mackville	W. H. Verity Appleton A. L. Murphy Hortonville P. Oik Hortonville M. L. O'Reilly Hortonville
Albert Carter Black Creek E. P. Strassburger Black Creek Fred. Lachal Black Creek D. S. Crosby & Co. (3) Seymour Ed. Kliest Seymour Anton Kolb Seymour A. W. Reitz Seymour H. C. Burmeister Seymour Peter Dooley Shlocton Frank Henry Shlocton E. A. Huebner Shlocton C. W. Staeffer Wittlin P. G. Berry Mackville J. H. Steffen Mackville C. Freioff Mackville Jos. Schmidt Mackville	Chas. Schanck Hortonville C. Wilton Black Creek Missling Bros. Black Creek W. N. Bergman Black Creek
Ed. Kliest Seymour Anton Kolb Seymour A. W. Reitz Seymour H. C. Burmeister Seymour Peter Dooley ¬Shiocton Frank Henry Shiocton E. A. Huebner Shiocton C. W. Staeffer Wittlin P. G. Berry Mackville J. H. Steffen Mackville C. Freioff Mackville Jos. Schmidt Mackville	Albert Carter Black Creek E. P. Strassburger Black Creek Fred. Lachal Black Creek
Frank Henry Shlocton E. A. Huebner Shlocton C. W. Staeffer Wittlin P. G. Berry Mackville J. H. Steffen Mackville C. Freioff Mackville Jos. Schmidt Mackville	Ed. Kliest Seymour Anton Kolb Seymour A. W. Reitz Seymour H. C. Burmeister Seymour
J. H. Steffen Mackville C. Freidf Mackville Jos. Schmidt Mackville	Frank Henry Shiocton E. A. Huebner Shiocton C. W. Staeffer Wittlin
	J. H. Steffen Mackville C. Freidf Mackville Jos. Schmidt Mackville

OUTAGAMIE COUNTY—Continued.
Will H. ManleyStephensville
Peter DooleyStephensville
A. F. Decker Stephensville
Peter FastbinderStephensville
Wisconsin Butter and Cheese Co
W. L. RootMedina
Co-op. Cheese Factory
Chas. Breitrick (2)Sagole
H. T. NabbefeltSagole
Navarino Dairy Ass'n Leeman
Town of Maine Dairy Co.,
C. A. Johnson
Crosby & Failey Lawrenceville C. Hahn & Co. Lawrenceville
G. LightfootLawrenceville
L. C. Ovitt
Chas. Staeffler
B. GrieseBinghamton
Nick Orth Little Chute
K. HoffmanBear Creek
Theo. WislerBear Creek
T. YoungBear Creek
John ArmstrongBear Creek
John Grube (2)Greenville
C. Schneiger
John Fastbinder
James Truck
E. Huber New London Schmall Bros New London
C. J. Broderich
Henry Greb South Osborn
Peter FasbenderBungert
OZAUKEE COUNTY— H. Schellenberg
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Gautner & Antoine Belgium Belgium
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium A. Antolne Belgium
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Gautner & Antoine Belgium Joseph Yantner Belgium Nick Porth Lake Church Henry Wester Lake Church
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Gautner & Antoine Belgium Nick Porth Lake Church Henry Wester Lake Church Jno. Ternes Lake Church
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Gautner & Antoine Belgium Nick Porth Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church Frank Wellenstein Lake Church
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OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Joseph Yantner Belgium Nick Porth Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium A. Antoine Belgium Gautner & Antoine Belgium Nick Porth Lake Church Henry Wester Lake Church Jno. Ternes Lake Church Frank Wellenstein Lake Church A. Antoine Lake Church A. Antoine Lake Church J. S. Klessig (2) Fredonia
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Joseph Yantner Belgium Nick Porth Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Joseph Yantner Belgium Nick Porth Lake Church Henry Wester Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church J. S. Klessig (2) Fredonia C. H. Witt (3) Fredonia Station
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Gautner & Antoine Belgium Nick Porth Lake Church Henry Wester Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church A. Antoine Lake Church A. Antoine Lake Church A. Antoine Lake Church J. S. Klessig (2) Fredonia C. H. Witt (3) Fredonia John De Presse Fredonia John De Presse Fredonia F. Kuepper Saukville
OZAUKEE COUNTY— H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton August Hadler Grafton Alfred Lange Druecker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Gautner & Antoine Belgium Nick Porth Lake Church Henry Wester Lake Church Jno. Ternes Lake Church Frank Wellenstein Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church Frank Wellenstein Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church Frank Wellenstein Lake Church Antoine Lake Church Antoine Lake Church Antoine Lake Church Antoine Sartner Lake Church J. S. Klessig (2) Fredonia C. H. Witt (3) Fredonia Station AJ Pens Fredonia
H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton Algust Hadler Grafton Alfred Lange Druccker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Joseph Yantner Belgium Nick Porth Lake Church Henry Wester Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church Antoine & Gartner Antoine Lake Church Antoine & Gartner Lake Church Antoine & Lake Church Antoine & Lake Church Antoine & Lake Church Fredonia Station Al Pens Fredonia C. H. Witt (3) Fredonia Station Al Pens Fredonia John De Presse Fredonia F. Kuepper Saukville Chas. Laufer Saukville
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H. Schellenberg Horn's Corners Jacob Mer.z Holy Cross Melchior Wester Holy Cross Chas. Mintzlaff Grafton Gustave Schroeder Grafton G. Kohlwey Grafton August Loech Grafton Algust Hadler Grafton Alfred Lange Druccker John Ternes (4) Belgium H. P. Mueller (2) Belgium Gautner & Antoine Belgium Joseph Yantner Belgium Nick Porth Lake Church Henry Wester Lake Church Henry Wester Lake Church Frank Wellenstein Lake Church Antoine & Gartner Antoine Lake Church Antoine & Gartner Lake Church Antoine & Lake Church Antoine & Lake Church Antoine & Lake Church Fredonia Station Al Pens Fredonia C. H. Witt (3) Fredonia Station Al Pens Fredonia John De Presse Fredonia F. Kuepper Saukville Chas. Laufer Saukville

OZAUKEE COUNTY—Continued. J. P. Fleschinger Port Washington John Pauley Port Washington Albert Koopman Port Washington Isaac Smith Port Washington Alfred Large Port Washington
PEPIN COUNTY— Chamberlain, Hakes & Co. East Pepin Adam Erickson Durand
PIERCE COUNTY— L. Ginser Martell Alois Grupfer Plum City Trimbelle Butter and Cheese Co Trimbelle S. Sampson Olivet Grastie Creamery Co Olivet Geo. Hoessly Herbert Ed. Kopp Ono Hans P. Tanberg Viking Rock Elm Creamery and Cheese Co Rock Elm Aug. F. Falk Rock Elm L. A. Hess Spring Valley Lawton Cheese Co Rock Elm
POLK COUNTY— Wm. F. Koch
PORTAGE COUNTY—
RACINE COUNTY— N. Spurtz
RICHLAND COUNTY— Westford Cheese Co. Cazenovia John Damer Balmoral F. E. Hissler Balmoral Chas. H. Brentel Tavera Mr. Pool Buck Creek Thos. Johnson Boaz A. & D. Beckwith Dixon W. J. Davis Dixon Walter Greenbeck Dixon E. F. Hamilton Excelsior E. O. Dorsh Excelsior H. J. Noyes Richland Center E. Kepler Richland Center Maple Grove Cheese Factory Viola Twin Bluff Creamery and Cheese Co Twin Bluff Ithaca Ithaca
ROCK COUNTY— Western Newark Creamery Co. Star Creamery Beloit Thompson & Rasey Beloit A. Engebretson Beloit Leo. Williams Beloit J, Speich Digitized by

ST. CROIX COUNTY—Continued.	
Geo. BernathOrfordvill	le
H. J. BullockMilto	
G. AugsbergerEvansvill	
A. Woodward	
J. & F. NewhallJohnstow	
C. B. Palmer	
Godfrey & KurtzLima Cente	
James NewhallLima Cente	
Edgerton Creamery Co Milto	n
Avon Cheese Factory CoAvo	n
ST. CROIX COUNTY—	
Spencer & Davis	đ
Spencer & Teal	
Hersey Cheese Co	y
Pine Lake Cheese Co	
Grasslie Cream & Cheese CoBaldwi	
Henderson & Johnston	
Roberts Creamery Co	
Julius Beer	
E. T. JepsopEmeral	
Cylon Cheese FactoryCylo	n
SAUK COUNTY—	
A. Schoenman	n
John Anderson	
Farmers' Cheese CoPlai	n
Poplar Grove Cheese Factory	
James O'Malley	ls
Chas. Schumatz	
Geo. H. Holmes	
J. K. PowellIronto	
Hutchins & YunkValto	
Sherwood FactorySpring Gree	
Ellefson Factory Spring Gree Maxwell Factory Spring Gree	
Wm. Drake	
E. & H. Staples	
Edward C. SweetAblema	n
W. H. Fish	
John Diehi	
wm. MeadeSandusk	У
SHAWANO COUNTY—	
P. R. Wilson	
F. KoeningLeopoli	
Pella Cheese Factory	
Henry Grab	
Belle Plaine Cheese Factory (E. S. Hilchnam)Belle Plai	n
John KrickanmithsRose Law	
Edward RohenSouth Osbor	
J. S. Brummel	
James Dickson Pulcife Fred Zuehlke Bondue	
Mike Felton Bondue	
F. Jaske	
Navarino Dairy Ass'n	
Werner Creamery & Cheese Factory	g

SHAWANO COUNTY-Continued.
John LeonardLaney
A. ThompsonLaney
Johnson Bros. & CoFrazer
Anton Siglinskie
F. CroningTilleda
P. Johnson
SHEBOYGAN COUNTY—
J. E. Curtis
H. A. Chaplin
John Stecker
H. Roehrlg
H. Scheibe
H. Schulz
Wm. Edler
Louis Helmer
Frank GowinPlymouth
Ferdinand SiemersPlymouth
Wm. JoslinPlymouth
John DevineParnell
J. F. Burke
L. Goering
J. F. Murray
Aug. Wolff
Albert Suemnicht-Winooski
G. B. Glover
C. H. Buohen
Frank Hughes
Mugan Bros. (2)
Michelke Bros
Henry P. Mitts
John Ternes
H. A. RehmFranklin
Aug. ReinekingFranklin
Wm. F. GartmannSaint George
Chas. Gartmann (Six Corners' Cheese Factory)Saint George
J. H. ThackrayGlenbeulah
Albert & GarlingGlenbeulah
C. F. F. Karstiedt
H. E. Buechel
Schreiber & Co
Wm. Ochs
Frank Theman Erdman
Emil Wilder Erdman
F. Olm & Co Edwards
H. Kamann Edwards Frank Hughes Cascade
F. Boldt
John Rowerdink
Christ. Strassburger
Ed. Schneider
Ed. Erlstoeser
Wm. Ochs
Wm. Slemers
Wm. Kohl & CoHoward
Geo. Horneck
Henry HorneckRhine
I. De Snide
Garret GrotenhausCedar Grove

SHEBOYGAN COUNTY—Continued.	
T. Walvoord	Cedar Grove
E. Hemer	Cedar Grove
Grotenhaus & Wissink	
C. E. Dana	Cedar Grove
A. C. Koehler	Waldo
Lemkuehl & Mentenk	Waldo
Ber Te Hennepe	Waldo
C. W. Gates	Waldo
Geo. Brickbauer	
Henry Reineck	Elkhart
Jac. Strub	Elkhart
F. A. Mehlos	
E. Spieker	
W. Grashorn	
Frank Kuepper	Random Lake
Albert Penz	Random Lake
Philip Pfeiffer	Random Lake
Emil Spercker	Random Lake
J. L. Magrit	
Carl Britton	Sheboygan
Frank Themar	Sheboygan
Emil Wilder	Sheboygan
J. F. Moehrl	Silver Creek
Frank Straus	Silver Creek
F. J. Mulvey	
Mentink & Semkiel	
Robt. Donath	Scott
Chris. Spreth	
Geo. Baum	Scott
A. M. Buchman	Saint Anna
Wendel Burg	Saint Anna
Peter Meyer	
G. C. Mayhew	
Geo. Webb	Greenbush
Thos. H. Lamb	Hoard
E. Ven Dewall	Hoard
John Cosgrove	
F. McNicholas	
Tier Mais	
H. Schulz	
J. Gessert	
E. B. Melindy	
John Dassow	
Hugh Aloes	
Kohl & Fenner	
J. H. Dassow	
Chris. Reinecke	
August Habeghorst	
Geo. Back	
Dassow & Widder	
Humphrey & Te Hennepe	Sheboygan Falls
U. Swann	Random Lake
John L. Magritz	
Kunz & Co	Oostburg
Frank Meyer	Oostburg
Fred. Gartmann	
F. W. Gartmann	
Wm. Huening	
O'Connell Bros	
John Auppelle	
Jos. Lensenk	
Anton Driefurst	Greenbush

12 Dairy.

SHEBOYGAN COUNTY-Continued.
C. M. Knowles
R. Rickmier
Jacob SpindlerEdwards
J. HersdorfEdwards
Fred. Lucker Edwards
Wm. HueninkOotsburg
Jacob DanneOotsburg
J. B. Huenink & Bro. Dacada Evan D. Wall. Cedar Grove
G. J. Dulmes
John Le Ronde
J. PehrenSt. George
H. TuttschellSt. George
E. B. Melendy
Otto Boldt Gibbsville Otto Ehrlich Gibbsville
A. Humphrey
John Dasson
A. BlenkeWinooski
W. ZelmsRathbun
L. GoehringParnell
Joseph Hemmes
C. H. Leecke
Jack Wolff
Spring FactoryPlymouth
J. G. GessertRhine
August BarteteScott
TAYLOR COUNTY— Farmers' Cheese Co
Farmers' Cheese Co
Farmers' Cheese Co
Farmers' Cheese Co
Farmers' Cheese Co
Farmers' Cheese Co
Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
Farmers' Cheese Co
Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
Farmers' Cheese Co
Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
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Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
Farmers' Cheese Co. Medford Browning Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson
Farmers' Cheese Co. Medford Browning Cheese Co. Medford TREMPEALEAU COUNTY— Fuller & Johnson

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WALWORTH COUNTY-Continued
E. Malcomson (3)Whitewater
Wm. Wright
J. G. Smith
Elkhorn Dairy Co
Adams Cheese FactoryTroy
Little Prairie Cheese FactoryTroy
WASHINGTON COUNTY—
J. H. Steiner
E. Teschendorf Saint Michaels
John AupperleBoltonville
Jos. Endress Schleisingerville
L. Guth & CoAckerville
Edward Knife
P. G. HamahanKewaskum
John Dengel Kewaskum
R. S. Demerest
Chas. A. McCormick
Geo. Kopp West Bend
L. A. LandvotreWest Bend
Ernest von Gruenegan
Ed. Kuenzi
C. F. Richman
Jos. Auftermann
Myra Cheese FactoryMyra
Wendel Petri Estate
Jack Hahn
Wayne & Addison
T. H. Jordan
Ph. Kuhn
P. P. Bast
R. Tice & Son
Geo. C. GrasseAurora
Chas. Stanske & Co
Herman GruhleFillmore
E. W. Wittig & CoFillmore
Reinhold Gerner Fillmore
The Newburgh Creamery CoNewburgh
Augustin Cheese Factory Newburgh
Erin Cheese FactoryThompson
Thompson Butter and Cheese Association
Fred. Settie
Geo. W. Tice
Jos. Aufdermann
John Jackel
Jac. HammKohlsville
, · ·
WAUKESHA COUNTY-
Wisconsin Butter and Cheese Co
Wisconsin Butter and Cheese CoNew Berlin
WAUPACA COUNTY
Otto KronkeReadfield
Jake VerholstReadfield
Anton Portman Readfield
Wm. Schneider
Fred. MundingerManawa
C. Rickmann
Silver Lake Co-operative Creamery AssociationScandinavia
Mag E I Cibaon Lind

WAUPACA COUNTY-Continued.
Baldwin Creamery CoWeyauwega
Henry PopeWeyauwega
Nick ZernClintonville
Chas. Brownschwege
C. T. Wilda
Robert Roloff
John Zehren
Chas. HackmanBear Creek
Chas. DeloSymco
P. H. Casper
Ruhsman & Co
C. A. Johnson
A. R. Hills
E. A. Huebner
Schmal Bros New London
Chas. Schoenrock
Iola Cheese FactoryIola
J. II. RaloffSymco
J. J. SleigerFremont
J. M. HickmanFremont
Albert BoheenFremont
J. M. HickmanFremont
E. Roman & CoBaldwins Mills
Fleece BrosOstrander
Phil. KissingerWaupaca
WAUSHARA COUNTY—
Borth Cheese Factory Borth
Elgin Creamery Co
Fountain Valley Factory
Warren Cheese and Butter Co
Saxville Cheese Factory
Herman Koehler West Bloomfield
John N. Seaver
Terrill Cheese Factory
Oasis Cheese Factory
P. M. DoerritzPlainfield
Mount Morris Cheese and Butter Co
Waushara Dairymen's Association Waushara
White Clover Cheese Factory Tustin
C. J. WatersBrushville
John LindTustin
Marion Cheese and Butter Co Spring Lake
Springbrook Cheese FactorySpring Lake
W. WallersAuroraville
J. J. Clark
Pine River AssociationPine River
WINNEBAGO COUNTY—
Wm. PribbernowZittan
Ed. Newman
Fred SpiegelbergZittan
Adolph Grimm Zittan
Christ. Boss
Sam Boss
C Rutier
Elder Creek Cheese FactoryOrihula
Wolf Hill Cheese Factory
Krenke & Co. Cheese FactoryOrihula
Adolph Grimm Cheese FactoryButtes des Morts
Coople

WINNED CO COUNTY Continued
WINNEBAGO COUNTY-Continued. Chas. KuettelButtes des Morts
D. Steiner Buttes des Morts
Clemens Reuteler Buttes des Morts
Sam Boss
Angus & HumphreyOshkosh
R. E. AbramsOshkosh
John RyfOshkosh
Chas. Perrin
Wm. Greenwald Oshkosh
M. Kuttell Oshkosh
Robert Smilie, SrOshkosh
Henry SchellerOshkosh
Casper PfeifferOshkosh
Wm. SchmittOshkosh
Wm. L. Jones
Rasmus HansonWinchester
Ed. NewmannWinchester
Winchester Cheese and Butter Co
Isaac McKinley
Jos. Schneider
Chas. Marin
Winneconne Butter and Cheese Co
G. ShultzWinneconne
Chas. MarriseWinneconne
G. Shultz (2) Poygan
G. W. Washburn mro
Wm. McKinley Neenah
Wm. Eide
N. Simon & Co
Coldsprings Cheese and Butter Co
Dempardt Miller
Benjamin AblardNekimi
Jacob NohldNekimi
W. P. GreenmanNekimi
Lambert & ScanlarFisk
Allenville Cheese FactoryAllenville
Vasburger Cheese Factory
Adolph GrimmAllenville
Rable Cheese Factory
Dewhard & Mills
Faber Cheese Factory
Vinland Cheese Factory
Jacob SchmakerWinneconne
L. MillerWinneconne J. W. JeffersWinneconne
J. J. Tucker Winneconne
J. J. Tucker Withteconic
WOOD COUNTY—
Anton Hensler Bakersvills
John RothenbergerBakersville
Grand Rapids Cheese FactorySmyrna
Hewitt Co-operative Co
Four Mile Creek Cheese FactoryGrand Rapids
Sherry Lumber Co. Cheese FactorySherry
Geo. Koenig
Farmers' Cheese Factory Auburndale
Sickles Co. Cheese FactoryPittsville
A. J. EmpeyMilladore
Herman HasslerVesper
Herman TheelGranite
John BlenkerBlenker
Amiel NachtAltdorf
J. J. Armstrong
Digitized by GO

CREAMERIES.

Post Office.
ADAMS COUNTY—
Spring Creek Creamery
ASHLAND COUNTY— Ashland County CreameryButternut
BARRON COUNTY—
Barron Co-operative Creamery CoBarron
S. W. Hines & Co
BROWN COUNTY—
Green Bay Creamery Co
John Corneleson
Martin KlipstineLittle Rapids
Jacob Law & Sons
William Deohue
August MutzkeWayside
C. F. Griese
Morris BraemeauWayside
August KickhaeferWayside
BUFFALO COUNTY-
Mondovi Creamery and Cheese Co
Holmes Landing Creamery
Ciover Leaf CreameryAlma
Burnside Co-operative Creamery Co
Geo. Tarrant & Son Skimming Station
A. O. Lee
F. Tritsch & BroCream
John HaighCream
BURNETT COUNTY-
Trade Lake CreameryTrade Lake
Grantsburg Creamery CoGrantsburg
CALUMET COUNTY—
Heckert & Albert Chilton
A. F. Decker Chilton
Nagle & Gelger Brillion
A. N. Zelke
Dundas Butter & Cheese Co
Grashorn & Albert
Matt. MoerschBrothertown
J. D. Grandine
Edwin Fenton Co
H. U. ReiffStockbridge
John L. WermerStockbridge
Holstein Creamery Co New Holstein
CHIPPEWA COUNTY—
Snyder Bros
Snyder Bros
II. G. St. Louis
D. J. Cartwright
Digitized by GOOGLE

CLARK COUNTY—	
Colby Creamery Co	Colby
A. Albert	
Clark County Creamery Co	
Granton Co-operative Creamery Association	Granton
Neillsville Creamery CoNe	
Clark County Butter Co No	
Geo. A. Austin	
W. G. Hyslop No	
Loyal Separator Creamery Association	
J. C. Marsh Christie Creamery Co.	
Longwood Co-operative Creamery CoLo	
J. C. Marsh	
W. F. MeyerGre	
W. F. Irving, AgentLo	
Solon Davis	
John Kubat	
COLUMBIA COUNTY—	
Mrs. Wm. Cuff	
F. W. HenryRoo	
F. C. Curtis	
Port Hope	
Port Hope	
S. Sampson	
Simmons & Hutson	
H. R. Moldenhauer & Bro.	
Wm. Meilkie	
S. Sampson	
Dodge & CampbellFa	
Ernest BritzmanFall	River
Bussard, R. M., & CoP	
Highland Grove CreameryP	
Columbus Cheese Factory	
O. A. Trowbridge	
Wm. Hamann	
Fred. Hamann	
A. E. Chievers	
Spring Brook Creamery	
Henry Lang, Jr	
G. W. Scott	
Lodi Creamery Co	
Simons and Hutson	
Spring Valley Cheese and Butter Co	
Crystal Lake Creamery Co	
George L. Chaffin	Lodi
Wm. Milkle	Corinne
G. A. KimballAr	
Mr. Worth—Skimming Station	
South Hampden Creamery CoH	
Ford & Ohler, House & Co	
F. A. FieldsKilbour	
Leeds' CreameryLeeds	
H. H. SmithMs	
Holcomb Bros	
Eugene Taylor	t Point
Englewood CreameryFal	l River
Englewood Creameryrai	T TOT MET.

CRAWFORD COUNTY—
Eastman Butter Manufacturing Co
Star Valley Creamery
Seneca Dairy Association
Kickapoo Valley Creamery CoStuben
Barnum Creamery Co
Wauzeka Butter CoWauzeka
Belle Center Creamery CoBelle Center
Soldiers' Grove Creamery CoSoldiers' Grove
Gay's Mill Creamery Co
Mt. Sterling Creamery Co
Prairie du Chien Creamery Co
J. L. E. WunschBelle Center
DANE COUNTY—
Roach & Seeber (2)Sun Prairie
J. V. StarkerSun Prairie
Roach & Seeber CoBurke
Burke CreameryBurke
Nelson Creamery CoBurke
Ruben HineySauk City
D. E. Wood & Co
J. L. Colby, SecStory
Hillside Creamery Co
Farmers' Butter Factory
J. F. Neefe & Co
A. C. Kretlow
Green, Wood & Co
W. BlairCottage Grove
Kalschens Bros
Oak Hall Creamery CoFloyd
M. Lindas, Sec
Dodge & DrakePierceville
C. GraakSpringfield Corners
Crystal Lake Creamery CoRoxbury
Henry Ruben
Henderson CreameryHenderson
Hoard's Creamery
Christiana Cheese and Butter CoLCambridge Daleyville Creamery AssociationPerry
Indian Hill Creamery
Dahlby & Co
H. B. Dahle Creamery Elvers
Blue Valley Creamery (Dahle & Meyers)Grit
Paoli Creamery Co
Dahle Bros Mt. Horeb
Black Earth Co-operative Dairy AssociationBlack Earth
Maple Grove CreameryBlack Earth
Blue Mounds Creamery
D. E. Wood & CoBelleville
Chas. Vernon
Chas. German
Parman & HuntMiddleton
House & Tyler
Perry Center Cheese FactoryForward
Spring Valley CreamerySpring
Hopkins Bros
Utica Creamery CoUtica
Prairie Queen Creamery
Crystal CreameryVerona
Dodge & Dodge
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DA:	NE COUNTY—Continued.	
	Deansville Farmers' Creamery AssociationDeans	ville
	Wheeler Prairie Creamery CoStoug	
•	Frank Rider	
	H .Berktolz	
	Chaffee & Ziegier	
	W. F. FebockMer	
	Rockdale Creamery Association	
	Chas. Tellofson	
	Oddland Factory	
	J. R. Ellis & Sons	
	Oak HallOi	
	Christina Cheese and Butter Co.	
	Utica Co-operative Creamery	
	Edgerton Creamery Co	
	Marxville Creamery Co	
	Roach & Seeber Co.	
	Eclipse CreameryWir	
	Ideal Creamery Co	
	J. Vischon	
	C. J. Dodge	
	Marshall & Steel	
	Spring Valley Creamery	
	Karow Bros. & Strehtow De F	
	North Windsor Creamery Co De F	
	Edgerton Creamery Co	
	Jno. Brown	Riley
	Robt. Marshall	shall
	Mendina Butter and Cheese Co	
	Karow Bros. & Strehlow Stoug	
	Edgerton Creamery CoStoug	
	Roach & SeeberLo	ndon
	Roach & SeeberDeer	field
	Dodge & CrumpDeer	field
	Deansville Creamery CoDeans	ville
	H. S. Ripp & Bros Cross P	lains
	Hy. Scheele & SonsCross P	lains
	Mazomanie Creamery Co	anie
	Mounds Creek Creamery Co	anie
	Halfway Prairie Creamery Co	
	John Stark East Br	
	Edgerton Creamery CoClar	kson
	August SoperRox	bury
	Hutson & SimonsRox	
	C. J. BrowneMt. Ve	rnon
	S. Hutson (2)	
	P. HorstAs	
	W. A. Strasburg	
	York Center Creamery CoIIa	
	Ernest Karow	
	Mansfield & Orvold	
	Manifester & Olyold	Kbom
DOT	OGE COUNTY-	
	Hatcher & Co	otor
	Christian & Puerner (4 Factories)	
	W. F. Jones (3 Factories)Burnett June	
	Toland Creamery Co	hend
	Clearwater Springs Dairy Factory	moli
	North Lowell Center Butter and Cheese FactoryLo	
	Welsh Road Factory	
	Posey Creamery	
	Lean Bros. Creamery	
	T. O. Woodworth	กเป็น
	L. G. Woodworth	nqıo

Rolling Prairie Jersey CreameryR	olling Prairie
Riverside Creamery	Mayville
Upland Creamery	
Ward & Laffey	
Mr. George Hansen	
Gold Medal Creamery	
H. Heck & Co	
M. & D. Ehrhardt Butter and Cheese Factory	
Fox Lake Creamery	
Frank Downey	
A. Graham	
A. W. Lehman Creamery Highland Creamery	
Rock River Creamery	
Rock Island Creamery	
Upland Creamery	
Beaver Dam Creamery	
Lake Shore Creamery	
Trenton Creamery	
Hatcher Creamery	.Beaver Dam
C. Grashon	
Lost Lake Creamery	
Ohrmundt & Groneudt	
The G. C. Mansfield Co	Juneau
Baehler & Homlein Creamery	Juneau
G. W. Ohrmundt	Reeseville
DOOR COUNTY—	
Fred. Hanson	Jacksonport
DUNN COUNTY—	
Rusk Co-operative Creamery Co	Rusk
O. W. Massee Creamery Co	Louisville
O. W. Massee Creamery Co	Louisville Colfax
O. W. Massee Creamery Co	Louisville Colfax Eau Galle
O. W. Massee Creamery Co	Louisville Colfax Eau Galle Menomonie
O. W. Massee Creamery Co Colfax Creamery Association Geo. Tarrant & Sons Hudson Road Creamery The Roberts Creamery Co	LouisvilleColfaxEau GalleMenomonieKnapp
O. W. Massee Creamery Co Colfax Creamery Association Geo. Tarrant & Sons Hudson Road Creamery The Roberts Creamery Co Downing Manufacturing Co	LouisvilleColfaxEau GalleMenomonieKnappDowning
O. W. Massee Creamery Co Colfax Creamery Association Geo. Tarrant & Sons Hudson Road Creamery The Roberts Creamery Co	LouisvilleColfaxEau GalleMenomonieKnappDowning
O. W. Massee Creamery Co Colfax Creamery Association Geo. Tarrant & Sons Hudson Road Creamery The Roberts Creamery Co Downing Manufacturing Co	LouisvilleColfaxEau GalleMenomonieKnappDowning
O. W. Massee Creamery Co Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co.	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridian
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dalry Co.	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridian
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchild
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchild
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co.	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchild
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY—	LouisvilleColfaxKau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFall Creek
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael	LouisvilleColfaxEau GalleMenomonie
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery Co. Fall Creamery Co. Fond Du LAC COUNTY— Mathew Michael J. H. Quick	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFall CreekCalumetvilleLamartine
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend.	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFall CreekCalumetvilleLamartine est Rosendale
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday	LouisvilleColfaxKau GalleMenomonieKnappDowningMeridianAugustaAugustaAugustaFalrchildFall CreekCalumetvilleLamartine est RosendaleFairwater
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories)	LouisvilleColfaxKau GalleMenomonieKnappDowningMeridianAugustaAugustaFalrchildFall CreekCalumetvilleLamartine eest RosendaleFairwaterMetomen
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dalry Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend W. H. Friday Hobbs Bros. (2 Factories) A. J. Amend	LouisvilleColfaxKau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFall CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomen
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend J. E. Amend	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFail CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenRipon
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend J. E. Amend Democrat Prairie Cheese and Butter Co.	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFail CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenRipon
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend Democrat Prairie Cheese and Butter Co. Oheler & House	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaAugustaFairchildFall CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenMetomenRiponAlto
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dalry Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend J. E. Amend Democrat Prairie Cheese and Butter Co. Oheler & House B. Kloosterboer	LouisvilleColfaxKau GalleMenomonieKnappDowningMeridianAugustaAugustaAugustaFairchildFail CreekCalumetvilleLamartine eest RosendaleFairwaterMetomenMetomenMetomenRiponAlto
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Fairchild Creamery Co. Fall Creek Creamery Co. Fond Du LAC County— Mathew Michael J. H. Quick A. J. Amend Hobbs Bros. (2 Factories) A. J. Amend J. E. Amend Democrat Prairie Cheese and Butter Co. Oheler & House B. Kloosterboer Gus. Keeseman	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFair CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenMetomenRiponAltoAlto
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fail Creek Creamery Co. Fond Du LAC County— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend J. E. Amend Democrat Prairie Cheese and Butter Co. Oheler & House B. Kloosterboer Gus. Keeseman H. C. Downy	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaFairchildFair CreekCalumetvilleLamartine fest RosendaleFairwaterMetomenMetomenRiponAltoAlto
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend J. E. Amend Democrat Prairie Cheese and Butter Co. Oheler & House B. Kloosterboer Gus. Keeseman H. C. Downy H. D. Stetsel	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaAugustaFairchildFail CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenMetomenRiponAltoAltoAltoAlto
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend Democrat Prairie Cheese and Butter Co. Oheler & House B. Kloosterboer Gus. Keeseman H. C. Downy H. D. Stetsel Frank Meyers	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaAugustaFairchildFail CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenMetomenAltoAltoAltoAltoAltoAlto
O. W. Massee Creamery Co. Colfax Creamery Association Geo. Tarrant & Sons. Hudson Road Creamery The Roberts Creamery Co. Downing Manufacturing Co. Meridian Creamery Co. EAU CLAIRE COUNTY— Victory Dairy Co. Rosedale Creamery Co. Fairchild Creamery Co. Fall Creek Creamery Co. FOND DU LAC COUNTY— Mathew Michael J. H. Quick A. J. Amend H. Friday Hobbs Bros. (2 Factories) A. J. Amend J. E. Amend Democrat Prairie Cheese and Butter Co. Oheler & House B. Kloosterboer Gus. Keeseman H. C. Downy H. D. Stetsel Frank Meyers W. J. Stabibury	LouisvilleColfaxEau GalleMenomonieKnappDowningMeridianAugustaAugustaAugustaFairchildFail CreekCalumetvilleLamartine est RosendaleFairwaterMetomenMetomenMetomenAltoAltoAltoAltoAltoAlto

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FOND DU LAC COUNTY—Continued.	
Louis Loehr	Johnsburg
Anton Blonien	
Highland Creamery Co	Kinwood
Alto Creamery	
M. J. Michels	
Frank March	
R. D. Sill	
C. A. Atwood	
W. Hatcher & Co.	
Bristol & Morgan	
A. E. Hill	
II. Grell Butter Co.	
Geo. Kreitzinger	
Hobbs Bros.	
S. B. Friday	
Fountain Creamery Co.	
Anton Dreifuerst & Co	
Ed. Kosb	
A. Stephany	
Louis Loehr	
Matt. Michels	
C. A. Atwood	
J. A. Stratz	
D. S. Crosby	
Rock River Co	
Cebell & Kotenberg	
Boemer & Meuer	
D. D. Jones	Byron
Amel Warnkeel	
J. E. Knott & Co	
J. A. Emerson	
C. E. Nash	
Arnold Petri	
Anton Boelin	
Bristol, Morgan & Co	
Highland Creamery Co	
J. E. Neef	
E. Parsons	Ladago
·	
GRANT COUNTY-	
Mount Lion Creamery Co	
Dyer & Co. (2 Factories)	Cornelia
Richland & Vannatti	Cornelia
Platteville C. & P. Co	Cornelia
Kieler Butter and Cheese Factory	:Kieler
Georgetown Creamery Co	Georgetown
Hazel Green Creamery Co	
Ellenboro Creamery Co	Ellenboro
Elgin Creamery Co	
W. H. Hunt	Potosi
Northwestern Creamery Co	
Elgin Creamery Co	
F. A. Chandler	Preston
Hinn, Hildebrand Co. (Limited	
F. A. Chandler	
Big Patch Skimming Station	
Thompson Butter Co	
Louisburg Butter and Cheese Co	. Louisburg
H. F. Stagman & Co	
W. H. Hunt	Burton

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GRANT COUNTY-Continued.
Mt. Hope Dairy Association
Hinn, Hildebrand Co
Millville Creamery Co Millville
J. W. Horsfall & Co
Brodtville Creamery Co
Bloomington Creamery Co
A. R. Allen
Platteville Cheese and Produce Factory Platteville H. J. Noyes
Lancaster Creamery Co Lancaster
Platteville Ridge No. 2
Bunker Hill Creamery Co
Whitchers' CreameryPlatteville
Elgin Creamery Co Montford
Elgin Creamery CoLivingston
Elgin Creamery Co
Klindt Geiger & Co
Geo. E. Groom
Chas. Stephens Ellenboro Mrs. Geo. Springer (2 Factories) (Ellenboro Creamery Co.) Ellenboro
North Andover Dairy Association
Cuba City Butter and Cheese Co
Richwood CreameryBoscobel
Hinn, Hildebrand Co
W. H. Hunt Hurricane
Wyalusing Co-op
· ·
CIDITION COLUMNS
GREEN COUNTY— Monticello Creamery Co
G. A. Trepp
J. R. Ellis & Co
R. Zimmerman Brooklyn
J. Specks & J. MartySylvester
A. SpecksSylvester
Juda CreameryJuda
A. SpeichJuda
D. E. Wood & CoBrowntown
Stearns Creamery Co
D. E. Wood & Co
Jacob Spech
D. E. Wood & Co
Polk CreameryPolk
H. Trumpy & SonClarno
A. Notting & L. O. KnudsenBrodhead
C. W. SinglehurstBrodhead
John Newman Co
Fred. HeftySchultz
John Newman
Dayton Dairy Association
W. H. ManserOakley
Monticello Creamery Co. (2 Factories)
E. South Creamery
James P. YoungerPolk
Fred. Knudert Creamery
Tondon
F. R. Moles \CreameryJordan
Robt. SteeleAlbany
Robt. Steele

GREEN LAKE COUNTY-
Groose & HaasKingston
H. P. Friday
Berlin Creamery Co
Wohlwend Bros
Hadgson's Creek Butter and Cheese CoBerlin
Seneca Butter and Cheese CoBerlin
J. F. Groose
Lake EmilyStanford
Henry Friday Green Lake F. Haar Markesan
J. L. Clark Berlin
IOWA COUNTY—
Otter Creek Creamery Co
Union Mills Creamery Co
Mitchell & Griffith's Creamery Co
Blue Mounds Valley Creamery Co
Spensley & Co
J. P. Younger Factory
Ridgeway Creamery Co
J. P. Younger
J. P. Younger Creamery Edmund
Dry Bone Creamery
P. J. Kobstrop Jonesdale C. J. Heim Jonesdale
Hollandale Co-op. Creamery Co
Mitchell & Griffiths' Creamery Co
Dodgeville Co-op. Creamery Co
Mound Creek Creamery
Dry Bone Creamery Dry Bone
JACKSON COUNTY-
J. R. Sechler & Son. Sechlerville W. G. Hyslop Melrose
North Bend Co-on Creamery CoNorth Bend
W G Hyslop
Schmidt, Callan & Grant. Stephensville W. G. Hyslop
JEFFERSON COUNTY— Bollman & CoBernhard
Albert Teich
Alfred Wilman Naven W. M. Dawe
Hintz & McCrider Co
Pobowta & Reese Pipersville
A. R. Hoard
Wm Dawa Oakhill
Karow Bros. & Co. Ebenezer E. C. Dodge Lake Mills
C I Millerd Lake Mills
Greenwood & StrasburgLake Mills

JEFFERSON COUNTY—Continued.	
Haberman & Breitzman	aka Milla
Union Creamery Co	
Louis Woelffer	
Favill Grove Creamery	
Rock Lake Creamery	
Rome Dairy Co-op. Creamery	
C. L. Calkins	
Albert Koch	
Fountain City Creamery	
Tom. Sanders	
Corner Grove Creamery Co	
Wilbe & Cook Creamery Co	
A. G. Haag Factory	
C. F. Pohlman	Helenville
A. R. Hoard Ko	shkonong
Maple Leaf Creamery CoJefferson	Junction
B. Oestrich	. Sullivan
Miller & Zahn	. Sullivan
C. F. Greenwood & Co	Milford
Milford Creamery Ass'n	
Herman Teich	
James Campbell	
Harvey Creamery Co.	
Riverside Creamery Co	
Maple Leaf Creamery Co	
Henry Schemp	
Hoard's Creamery	
Billett & Marshall	Hebron
Schempf & Godfrey (2 Factories)	Habron
Bark River Cheese Co.	
H. C. Christians Co.	
Jahnke Bros.	
Roberts & Reese	
C. Kaulaf	
Wm. YanderyCo	
Schimp, Kuiz & GodfryCo	
The D. E. Wood Butter Co	
Fairview Creamery Co.	
Elgin Butter Co.	
Ixonia Butter and Cheese Co	
Watertown Creamery Co	vatertown
May's Creamery Co	
North Road Factory	
West Road Creamery Co	
Jos. Brooks Creamery	
South Road Creamery Co	
Lake View Creamery Co	
Bleecker Grove Creamery	
Union Creamery	
Rypkie Grove Creamery	
Roach & Seeber Co.	
York Center Creamery Co	
Waterloo Butter and Cheese Co	
Geo. C. Mansfield Co. (7 Factories in the county)Johns	
H. C. Christians Co. (4 Factories)Johnse	
Johnson's Creek (H. J. Grell Butter & Egg Co.)Johns	
Grellton (H. J. Grell Butter & Egg Co.)	
Manz & HolenbergJohnson	
A. R. Hoard (5 Factories)Ft	. Atkinson
H. Schempf (3 Factories)F	t Atkinson
Geo. HartelFt	. Atkinson



JEFFERSON COUNTY—Continued. South Koshkonong
KENOSHA COUNTY— Oatman Bros.' Factory Salem Cyrus Benedict Brighton Wm. Klosmeyer Brighton Oatman Bros. Wilmot Farmers' Wilmot Creamery Wilmot Meane Creamery Burlington S. D. Slade (Slade's Corners Creamery) Slade's Corners Karnes' Corners Creamery Woodworth Woodworth Creamery Woodworth North Creamery Woodworth Farmers' Dairy Association Bassett H. B. Kellogg. Ranney Oatman Bros. (2 Factories) Bristol Truesdell Creamery Co. Pleasant Prairie F. R. Snyder Pleasant Prairie Wm. Peterson Wheatland Trevor Creamery Ass'n Trevor Brighton Star Creamery Silver Lake Truesdell Creamery Co. Truesdell Mt. Pleasant Butter Co. Somers Kenosha County Star Creamery Somers Farr Corners Creamery Somers Farr Corners Creamery Paris Kenosha County Star Creamery Paris
KEWAUNEE COUNTY— Albert Hoppe
LA CROSSE COUNTY— H. H. Bosshard Burns Holman Creamery Association Holman West Salem Co-op. Creamery Ass'n West Salem A. C. Hanson (Mindoro Creamery Co.) Mindoro James Barclay Mindoro John H. Dahle Burr Oak Bangor Co-op. Dairy Association Bangor Mrs. Samuels Barre Mills Rockland Creamery Rockland

LA FAYETTE COUNTY—
Whiteoak Dairy and Feed Ass'nWhiteo
T. Isaac Vickers (Skimming Station)
Elk Grove CreameryElk Gro
Geo. MeyersRed Ro
Wardsville Separating Creamery CoShullsbu
Shullsburg Creamery CoShullsbu
Jos. BiackstoneShullsbu
Judge Character
Dodge Grove CreameryLeadmin
Columbia CreameryBento
Rudolph MillerDumbarte
D. E. Wood Butter CoGrati
Krogg & DettimerBelmo
The D. E. Wood Butter Co
Town Line Creamery Grati
New Diggings' Dairy and Feed Ass'nNew Diggin
D. E. Wood & CoSouth Ways
J. NewmanSouth Way
Avon Creamery Co
Wardsville Creamery Co
Pleasant View Creamery Co
Otter Creek Creamery Co
R. H. Driver (2 Creameries)
R. T. Scott & CoYellowston
Argyle Creamery (Juo. Newman Co.)
J. Newman CoYellowston
F. R. Moler
Fayette Creamery Co
Wiota Creamery
John NewmanBlanchardvil
Bethel Grove CreameryTruma
Albert PoolLamon
John Newcomb CoLamor
J. H. ClarksonNew Digging
D. E. Wood Butter CoWiot
Dodge Grove CreameryLeadmin
LANGLADE COUNTY—
Antigo Cheese and Creamery CoAntig
Antigo cheese and creamery co
I INGOL N. GOLLYWY
LINCOLN COUNTY—
The Russell Creamery Co
J. A. YoungMerri
Chas. Dickert
MANITOWOC COUNTY—
Adolph KlessigOsma
Martin RhodeNortheir
Klessig BrosSt. Wende
Henry HingissSt. Wende
P. H. PeacockEast Gibso
P. H. Peacock
Jas. MallmanRub
H. Bargenbusch Rut
F. Simers
Chas. WeinfatherTisch Mill
John Backhaus Mishicot
Cleveland Creamery Co
Oscar BartelClevelan
Frank Fenner & BroLarrabe
H. StrathoffAlvern
R. C. Belnke , ,
B. C. DEHAD ,,,,,,

MANITOWOC COUNTY—Continued. Simon Geger
MARATHON COUNTY— Anton Braun / Poinatowski Aug. Ritger & Co. Marathon Gotlieb Koehler Hamburg Ludwig Mootz Barney Henry Belike Stettin Andrew Flaig Colby MARINETTE COUNTY—
John Hoganson
MARQUETTE COUNTY— Germania Germania Creamery Co. Germania John Ellis Moundville Lakeview Briggsville B. D. Brigham Westfield W. N. Johnson Oxford Stockholders' Creamery Co. Douglas Center
MILWAUKEE COUNTY— Oatman Bros
MONROE COUNTY.— T. L. Martin (Wilton Creamery Co.) Wilton Cold Spring Co-op. Creamery Wilton F. J. Krakanbuhl Milvina Melvina Creamery Co. Melvina Alex. Roof Norwalk Tunnel City Creamery Co. Tunnel City Cashton Creamery Co. St. Mary's Kendall Creamery Association Leon Leon Creamery Association Leon Tomah The Warrens A. C. Cole & Son Cataract A. I. Sensee & Son Cataract Angelo Creamery Co. Margelo Wm. Huntzinger St. Mary's Elgin Creamery Co. Cashton J. J. Menn Oil City

OCONTO COUNTY— Little River CreameryOconto
Maple Valley Creamery Co
Anson Eldred Co. Stiles John F. Schultz
Lena Creamery Co. (Henry Grab)Lena
Gillett Co-operative Co
Maple Valley Creamery Co
OUTAGAMIE COUNTY—
Welcome Creamery CoWelcome
Kaukauna Creamery Co
Bungert Creamery Co
Welcome CreameryBear Creek
Aug. GerlackApple Creek
John Cannon
Koehn & PotterAppleton
Dengler & SonAppleton
Johnston's Creamery
Peter Zomer
L. Dabareiner & CoHortonville
Hogaboom Bros
Loubenhimer & Stein
Black Creek Butter and Cheese CoBlack Creek
John W. Gruppe Butter & Cheese CoGreenville
Chas. Baker Seymour H. Greb Seymour
Black Creek Butter & Cheese Co
Theo. Marks Black Creek
OZAUKEE COUNTY—
E. L. Eastman (Riverside Creamery)
Arthur Beger
Wm. SchoessowFreistadt
Five Corners Creamery Co
John PaulusBelgium Nick. KnepperFredonis
Chas. Gerlach
The Grafton Creamery Co
PEPIN COUNTY—
Plummer Mercantile Co
Geo. Tarrant & Son (3 Factories)
V. W. Dorwin Mill Co., Cheese and Creamery
W. V. Dorwin Mill Co
Bear Creek Co-op. Creamery Co
PIERCE COUNTY
Martell Creamery Co
Rock Elm Creamery Association
Trimbelle Butter & Cheese Co
Johnson & Larson
Rock Elm Butter & Cheese Ass'n Exile

POLK COUNTY—
A. C. Roonholdt
H. J. Hjost
Balsam Lake Co-operative Creamery CoBalsam Lake
Clear Lake Co-operative Creamery Co
Wm. Kent & Co. Creamery Osceola Mills
Hjort Bros West Sweden
Laketown Creamery
Atlas Creamery Co
Anthony Johnson and Co
Creamery
PRICE COUNTY—
Christian MayerPhillips
RACINE COUNTY— McCanna, Frasier CoWaterford
McCanna, Frasier Co
McCanna, Frasier CoBurlington
Burlington Farmers' CreameryBurlington
Cyrus Benedict
McCanna, Frasier Co
McCanna, Frasier Co
Karney & Wurterling
Mt. Pleasant Butter CoSylvania
W. V. CreamerySylvania
Spellum & Thompson
Thompsonville Creamery
Raymond Creamery Co
Clumlie Creamery
Cyrus Benedict Union
N. Spartz
Husher CreameryCaledonia
RICHLAND COUNTY-
Carswell Bros
Martin & HarterRichland Center
J. R. Mansfield
Henry Flemme
Ithaca Union Cheese Co
Richwood Creamery Co
Bloom City Creamery CoBloom City
Elgin Creamery CoBear Valley
Andrew HarterLone Rock
BOCK COUNTY—
Courtland Lackner
Chas. D. Fitch Emerald Grove
M. C. UehlingShoplere
F. O. Uehling & Co
Eagle Creamery Co
Taylor & MarstonBeloit
Egbert StarrBeloit
W. S. Thompson
Edgerton Creamery Co. (G. C. Mansfield & Co.)Edgerton
Elgin Creamery Co

ROCK COUNTY-Continued.	
F. O. Uehling & Co.	ما
E. H. Skinner Orfordrill	1.
Wm. Brinkman	
Tiffany Co-operative Creamery Ass'n	y
Rice & CarlsonFootvill	le
Chas. Hatton	ie
D. E. Wood & Co	.a.
Conley & Conry Fairfiel	iA
G. D. HallJohnstown Cents	a P
"Harmony"—J. C. Hohn, PropJanesvill	le
"Janesville"—F. W. Boetcher, PropJanesville	le
"Willowdale"—E. Brinkman, PropJanesvill	ie
La Prairie Creamery Co	
Godfrey & McCombLima Cente	ш
Kachel & MarlettWhitewate	
A. D. Conkey	n
Geo. K. Nelson	n
D. E. Wood & Co Evansvill	
Johnstown Creamery Co	
Fred Vankirk	
Sands & Co	n
Ehler BrinkmanWillowda	
Western Newark Creamery Co Newar	k
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ST. CROIX COUNTY—	
Rush River Creamery CoBaldwi	'n
T. E. Hawkins	
Roberts Creamery Co	
Roberts Creamery CoWilso	
Roberts Creamery & Cheese Co	
C. F. Freeman & Co	
James J. Graslie	
Glenwood Creamery Co	
Otto Jensen Creamery CoBrookvil	le
Cylon Creamery Co	'n
Woodville Butter & Cheese Co	le
Star Prairie Creamery CoStar Prair	
Haugen & GrassliePalme	
Nels Lorenson	
Graslie Creamery Co	
Grasile Creamery Co	
NATUR GOLINDA	
SAUK COUNTY— Troy and Honey Creek FactoryWilto	'n
Durward & Querhammer	/k
Sumpter Creamery Co	
Wisconsin Co-operative Creamery CoSauk Cit	ty
Riverside CreamerySauk Cit	y
Barker Bros)0
W. P. Dennett	
Dell Sanborn	le le
Merrimack & Caledonia Creamery CoMerrimac	
BILLIMADE & CHICAGON CLUMMON CO	_



SAUK COUNTY—Continued.
Co-operative Creamery CoSpring Green
Drew & SchmidtLeland
J. E. WardSandusky
Clover Creamery Co. Sandusky Sumpter Creamery Co. King's Corners
Sumpter Creamery CoKing s Corners
SHAWANO COUNTY—
O. A. Risum
Anton von Heimburg
micon for incimous
SHEBOYGAN COUNTY—
Garling & Co
A. Suemnicht
Andrus Bros
O'Connell BrosBeechwood
Haenenke Bros
J. E. Doane
Dulmes & KremmerOostburg
P. SpravgersOostburg Lemkuel & SufelingOostburg
J. P. EhrenOostburg
Jos. LensenkOostburg
William ReineckOostburg
O'Connell Bros
Frank Bartzer
Herbert Bliss
Sheboygan Milk Co
T. M. Champeny
C. H. Lencke
Wm. SkeltonParnell
Geo. KrautkraemerFranklin
C. F. G. Wernicke
Z. HoldenSheboygan Falls
M. McKinnon Sheboygan Falls
McGran & EvansSheboygan Falls
J. F. MohriSilver Creek
ST. CROIX COUNTY
Rush River Creamery Co
Graslie & Bonninger New Creamery
MDWAYDWAY DAY GOYAMY
TREMPEALEAU COUNTY— Wernick & Hammer
Ontario Creamery Ass'nOntario
C. M. LevisOsseo
Arctic Springs Creamery Co
N. I. GilbertEleva
Unity Co-operative Creamery Co
P. Ekem Pigeon Falls Blair Trading Ass'n Blair
W. G. Hyslop
Jno. ZieglerValley
Arcadia Creamery CoArcadia
Independence Creamery Co
Burnside Butter & Cheese FactoryTrempealeau
Whitehall Creamery Ass'n
Dodge Creamery
manda aramara

VERNON COUNTY—	
Dilly Creamery Co.	Dille
Coon Valley Creamery	Coon Velley
A. E. Eide	Chagohurg
Arbor Creamery Co.	Dilly
Thompson Bros. & Co	Bristow
C. C. Olson	Bristow
Thompson Bros.	Bristow
Hoken, Anderson, Butter & Cheese	Weathy
A. E. Mutch	Hillsboro
Wernick & Hammer	Hillsboro
C. V. Wernick	Hillsboro
John Warner	Ross
Ontario Creamery Ass'n	Ontario
Newton Creamery Co. Elgin Creamery Co.	Newton
La Farge Creamery	
and I targe of cumory	raige
WALWORTH COUNTY—	
J. Watts	Richmond
Wisconsin Butter & Cheese Co	Millard
Farmers' Creamery Co	
Columbia Creamery Co. Harris & West	Allen's Grove
Wisconsin Butter & Cheese Co	Favottovilla
Conley & Conroy	
Alvin Stone	
Union Produce Co	
C. R. Gibbs	
H. Judke	
John Kachel Co., Creamery and Cheese	
George Cowles	
Thos. Dryer Cheese Factory and Creamery	
Harvey Godfrey	
Clover Valley Creamery Co	
J. P. Galloway	Whitewater
Elkhorn Dairy Co	Elkhorn
Wisconsin Butter & Cheese Co	
Lake Town Creamery	
South Sugar Creek, Butter & Cheese	
East Troy Co-operative Butter & Cheese Ass'n	
Co-operative Troy Creamery Co	
Silver Lake Creamery Co	Tibbets
Oatman Bros	Spring Prairie
Hilburn Creamery Co	Lake Buel ah
McCanna & Frasier	Lake Buelah
Metlowee Butter Co	East Delavan
East Delavan Creamery Co	East Delavan
Honey Creek Co-operative Creamery	
McCanna, Frasier & Co	Honey Creek
Spring Creek Creamery Ass'n	Bissell
Oatman Bros	Genoa Junction
J. B. Vosburg	Genoa Junction
Elgin Butter Co	Genoa Junction
Lake View Creamery Co.	Lake Geneva
North Bloomfield Farmers' Factory	Lake Geneva
Kayes Park Creamery Co	Lake Geneva
Geneva Center Creamery	Como

WALWORTH COUNTY—Continued.	
Meltowe Butter Factory—IslandDelavar	n
Delavan Prairie Co-operative Creamery	n
H. MarrLa Grange	е
La Grange Butter and Cheese FactoryLa Grange	е
Harris Bros Troy Center	r
Oatman Bros	đ
Wisconsia Butter & Cheese Factory Springfield McAdam Bros. East Troj	a
East Troy Butter & Cheese Ass'n	y
Troy Cheese & Creamery Ass'n	
Newhall Bros	d
Elgin Dairy Co	
Sharon Dairy Co	
C. H. StubbsLyons	8
WASHINGTON COUNTY—	
Boltonville S. & C. AssociationBoltonville	е
M. N. GehlSouth Germantown	n
Dow Maxon & Co	е
L. RosenheimerKewaskum	
West Bend Creamery Co	đ
Jackson Butter & Cheese CoJackson	n
Dow Maxon	
J. B. A. Kern & SonAllentown	
John Replinger & Co	
M. Stoffel	
Gilt Edge Butter Co	
Newburg Creamery Co	
Thompson Creamery	
J. L. Bertscher	
	n
Michael Gehl	a
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Michael Gehl	e
Michael Gehl	e s
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente Golden Lake Menomonee Fall Co-operative Creamery CoMenomonee Fall Harris Bros. Calhour Prince of Wales Creamery Waler	e s n
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente Golden Lake Menomonee Fall Co-operative Creamery Co Menomonee Fall Harris Bros. Calhour Prince of Wales Creamery Wales Wisconsin Butter & Cheese Co. Mukwonaga	e s n s
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Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente	e s n s
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente	e s n s o n
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente Golden Lake Menomonee Fall Co-operative Creamery Co. Menomonee Fall Harris Bros. Calhour Prince of Wales Creamery Wales Wisconsin Butter & Cheese Co. Mukwonage Perry Schuchart Merton T. M. Champeny Monches Hartland Creamery Hartland Saylesville Creamery Gennessee	e s n s o n
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente Golden Lake Menomonee Fall Co-operative Creamery Co. Menomonee Fall Harris Bros. Calhour Prince of Wales Creamery Wales Wisconsin Butter & Cheese Co. Mukwonage Perry Schuchart Mertor T. M. Champeny Monchet Hartland Creamery Hartland Saylesville Creamery Gennessee North Prairie Butter and Cheese Co. North Prairie	e s n s o n s d e e
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente	e s n s o n s d e e d
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente	e s n s o n s d e e d y
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Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente Golden Lake Menomonee Fall Co-operative Creamery Co Menomonee Fall Harris Bros. Calhour Prince of Wales Creamery Wisconsin Butter & Cheese Co. Mukwonago Perry Schuchart Merton T. M. Champeny Monchee Hartland Creamery Monchee Hartland Creamery Hartland Saylesville Creamery Gennessee North Prairie Butter and Cheese Co. North Prairie Delafield Co-operative Creamery Co. Delafield Marcy Elgin Co. Marcy Claser & Claser Marcy Roach & Seeber Summit Centee Herman Bente Summit Centee Miller & Zahn Summit Centee Miller & Zahn Summit Centee Miller & Zahn Summit Centee Wisconsin Butter and Cheese Co. Vernon T. M. Champeny Susses Wisconsin Butter and Cheese Co. Wernon T. M. Champeny Susses Wisconsin Butter and Cheese Co. Wearnon T. M. Champeny Susses Wisconsin Butter and Cheese Co. Wearnon T. M. Champeny Susses Wisconsin Butter and Cheese Co. Wearnon T. M. Champeny Susses Wisconsin Butter and Cheese Co. Waukesha Wm. Miller & Co. Dousmar Flynn & Whelan Merton Wm. Miller Waterville Pewaukee Creamery Co. Pewaukee T. M. Champeny Colgat. Chris. Gians, Creamery and Hand Cheese Tess Corner	esnsonsdeed yvrrrynn xanneess
Michael Gehl Aurora WAUKESHA COUNTY— C. J. Bente	esnsonsdeed yyrrrynn xanneesst

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Report of the Wisconsin

WAUKESHA COUNTY—Continued.
McCanna & Frasier Co Prospect
McCanna's Butter and Cheese FactoryBig Bend
Ottowa Co-operative Cheese and Butter CoOttowa
H. J. RobertsOconomowoc H. C. PatrickOconomowoc
Summit CreameryOconomowoc
Muskego CreameryBurlington
•
WAUPACA COUNTY—
Spring Lake Co-operative Creamery Association
Ed. R. Traeger
Baldwin Creamery CoWeyauwega
WAUSHARA COUNTY-
Eureka Creamery CoBorth
D. J. Jenne & Son
Crystal Fountain CreameryAuroraville
Fountain Valley Creamery
Ruly Heale Bros
Poysippi Creamery Co. Poysippi D. J. Jenne & Co. Fargoville
Plainfield Butter Factory
Pine River Dairy Association
C. S. Walter, Butter and Cheese
Ernest MathewsTerrill
Hale Bros Terrill
Poysippi CreameryPoysippi
WINNEBAGO COUNTY—
Allenville Spring Creamery Co
Rush Lake Creamery CoRush Lake
Chas. LambertPickett
Lambert & SconlanFisk
Eureka Creamery
Koro Co-operative Creamery Co
Floral Creamery Association
Floral Co-operative Creamery
Floral CreameryOmro
Oak Hill Creamery CoLarsen
Guss KreptkeNeenah
Wm. M. RobinsonNeenah
J. W. JeffersWinneconne
Chris. VelteZitlan
WOOD COUNTY—
Hiles Bros Dexterville
M. A. Sickels & CoPittsville
Grand Rapids CreamerySmyrna
Hewitt Co-operative Creamery CoHewitt
Farmer's Creamery CoGrand Kapids

MICHIGAN SUPREME COURT OPINION.

PEOPLE VS. THE WORDEN GROCER CO. FILED DECEMBER 6, 1898.

LONG, J. The complaint in this case charges that the defendant: "On February 5, 1898, did unlawfully sell and deliver to John T. Owen, of Benton Harbor, Michigan, a large quantity, to-wit: One barrel of vinegar which was not then and there in compliance with the provisions of act No. 71, Public Acts of 1897, in this, viz.: That said vinegar was sold as fermented cider vinegar, and branded as such; that said vinegar contained less than one and three-fourths per cent. by weight, upon full evaporation (at the temperature of boiling water) of solids contained in the fruit from which said vinegar is fermented, to-wit: One and fifty one-hundredths per cent. of solids; and said vinegar contained less than two and a half-tenths of one per cent. ash or mineral matter, the same being the product of the material from which said vinegar was manufactured, to-wit: eight one-hundredths of one per cent. of ash or mineral matter, against the form of the statute in such case made and provided," etc.

The cause was commenced in the police court, and, being removed to the circuit, came on to be heard before a jury. The defendant refused to plead, and counsel for defendant thereupon made a motion to quash the complaint and summons for several reasons, which will be hereafter discussed. The court upon the trial directed a verdict of guilty, and the cause comes to this court by writ of error.

The title of the act reads: "An act in relation to the manufacture and sale of vinegar, and to repeal act No. 224 of the Public Acts of 1889, approved," etc. Sections one and two of the act, being the sections in question, provide:

"Section 1. The People of the State of Michigan enact: That "no person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act. No vinegar shall be sold as apple, orchard or cider vinegar which is not the legitimate product of pure apple juice, known as apple cider or vinegar not made exclusively of said apple cider or vinegar into which foreign substance, drugs or acids have been introduced, as may appear upon proper tests, and upon said test, shall contain not less than one and three-fourths per cent., by weight, of cider vinegar solids upon full evaporation at the temperature of boiling water.

"Section 2. All vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded 'fermented vinegar,' with the name of the fruit or substance from which the same is made. And all vinegar made wholly or in part from distilled liquor shall be branded 'distilled vinegar,' and all of such distilled vinegar shall be free from coloring matter added during or after distillation, and from color other than imparted to it by distillation. And all fermented vinegar not distilled shall contain not less than one and three-fourths per cent., by weight, upon full evaporation (at the temperature of boiling water) of solids, contained in the fruit or grain from which said vinegar is fermented, and said vinegar shall contain not less than two and a half-tenths of one per cent. ash or mineral matter, the same being the product of the material from which said vinegar is manufactured. And all vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, and shall contain no foreign substance, and shall contain not less than four per cent., by weight, of absolute acetic acid."

It appears by the testimony that the defendant, a Michigan corporation doing business at Grand Rapids, on February 5, 1898, sold a barrel of vinegar to one John T. Owen, of Benton Harbor. The sale is admitted. A sample of the vinegar

was taken from this barrel and analyzed by the state analyst, Mr. Fred A. Borrodalle. The correctness of this analysis is not disputed. This analysis showed that the vinegar did not comply with the requirements of the statute, in that it did not contain the amount of solids nor the amount of ash or mineral matter required.

The contentions made by the counsel for defendant mostly relate to the validity of the act.

1. It is contended that the title to the act does not express any object; that the act was intended to prevent deception in the sale of vinegar, or to prevent adulteration of vinegar, but that no such object is expressed in the title; and that the title is therefore in conflict with section 20, article 4, of the constitution of this state, which provides that: "No law shall embrace more than one object, which shall be expressed in its title."

We think this contention is sufficiently answered by what was said by this court in Soukup v. Van Dyke, 109 Mich., 681. There the title was: "An act relative to justice courts in the city of Grand Rapids." It was said: "The title is sufficient if it fairly and reasonably announces the object, and that it is a single one. If this requirement be observed, the legislature must determine for itself how broad and comprehensive shall be the object of a statute, and how much particularity shall be employed in the title in defining it."

In People v. Kelly, 99 Mich., 82, the title under discussion was: "An act relative to disorderly persons, and to repeal," etc. See also:

State v. County Judges, 2 Iowa, 281.

McAunich v. The Miss. & Mo. R. R. Co., 20 Iowa, 342.

2. Counsel contends that the complaint being drawn under section 2 of the act, no conviction can follow; that if any violation of the law be found, it is of section 1, and not of section 2 of the act; that therefore the complaint was drawn under the wrong section.

This contention cannot be sustained. It is plain from the reading of these sections that the legislature intended that all fermented vinegar should come up to the required standard, whether made from fruit or grain.

- 3. The defendant contends that the act is unreasonable, and therefore void as beyond the police power of the state, in that the test for cider vinegar in regard to solids is arbitrary, unscientific and not calculated to accomplish the end sought by the legislature, viz: To protect the public health against spurious vinegar; that such test is no test, because:
- (a.) Said solids and ash are indefinite ingredients of vinegar from a hygienic standpoint.
- (b.) Their comparative absence or presence is not an essential ingredient of pure apple cider vinegar.
- (c.) A vinegar can be manufactured which will satisfy the requirements of the statute and yet contain no materials from apples or the product of apples.
- (d.) A pure apple cider vinegar is frequently made which is below the requirements of the statute in solids and ash.
- (c.) The less proportion of solids is a proof of greater purity in the vinegar and of its better keeping qualities.

These questions might very properly be addressed to the legislature, but are matters with which the court has nothing to do. It is not a part of the functions of the court to investigate the facts entering into questions of public policy merely. Under our system that power is lodged in the legislative branch of the government. It belongs to that branch to determine primarily what measures are appropriate or needful for the protection of the public morals, the public health or the public safety.

Barton v. McWhinney, 85 Ind., 481;

.Mugler v. Kansas, 123 U. S., 660;

Com. v. Powell, 127 U. S., 685.

In People v. Snowberger, 71 N. W. R., 499, it was said by this court: "The act may work hardship in many cases, but the question is one to be addressed to the legislature—not to the court."

The question of the reasonableness of the acts found in many states relative to the sale of milk below a certain standard has been frequently raised in the courts, and the acts upheld.

In Com. v. Evans, 132 Mass., 11, the court passing upon such a statute said: "The intention of the legislature and the practical operation of this section?

in connection with the third section is to provide that it shall be unlawful to sell milk containing not less than thirteen per cent, of milk solids. This belongs to the class of police regulations designated to prevent fraud and to protect the health of the people which is within the constitutional power of the legislature to enact."

In State v. Smyth, 14 R. I., 100, the court said: "It was the purpose of the statute to prohibit, not only the dealing in milk which had been adulterated, but also in milk of such an inferior quality as to fall below the standard named in section three. It is equally a fraud upon the buyer, whether the milk which he buys was originally good and has been deterlorated by the addition of water, or whether in its natural state it is so poor as to contain the same proportion of water as that which has been adulterated." See also:

State v. Newton, 45 N. J. L., 469;

Bertholf v. O'Reilly, 74 N. Y., 509;

State v. Campbell, 64 N. H., 403.

But counsel contemeds that the reasonableness of this act is a question of fact for the jury to determine from the expert chemical evidence.

This question is neither for the court nor the jury to determine. In People v. Cipperly, 101 N. Y., 634, that very question was discussed and decided adversely to the claim here. It was said: "The defendant takes the broader ground that the legislature cannot, under the constitution, prohibit the sale of milk 'drawn from healthy cows which in its natural state falls below the standard fixed by the act, unless such milk or the articles made from it are in fact unwholesome or dangerous to the public health. How is that question of fact to be determined? The court cannot take judicial notice whether the milk below the standard is or is not unwholesome or dangerous to the public health. Is that to be a question for the jury? If so, the court must charge a jury in each case that if they find milk below that standard to be unwholesome, then the statute is unconstitutional. Evidently the constitutional question cannot be settled, or rather settled in that way. The constitutionality would vary with the varying judgment of jurors.

In the emery wheel case before us, in People v. Smith, 108 Mich., p. 534, a somewhat similar question was discussed. It was said: "If the court find the plain provisions of the constitution violated, or if it can be said that the act is not within the rule of necessity in view of facts of which judicial notice may be taken, then the act must fall; otherwise it should stand." See also:

People v. Girard, 145 N. Y., p. 109.

Counsel also contends that defendant was not allowed, nor could it obtain, a sample of the vinegar in question for analysis, and was deprived of the right to produce evidence as to the amount of solids in the vinegar; and was thus deprived of property without due process of law.

The record shows that the defendant was not prevented from getting a sample of the vinegar by any person interested in the prosecution of the suit. The records show that the only effort it made to get such sample was a letter written to Mr. Owen, who had bought and paid for the vinegar, requesting him to return it, to which the defendant received no reply; and it does not appear that Mr. Owen had any of the vinegar left at that time. No cample was left with the defendant by the prosecution; nor was this necessary.

Com. v. Coleman, 157 Mass., 460.

This statute forbids the manufacture and sale of vinegar not in compliance therewith; and persons manufacturing or selling vinegar below the standard do so at their peril. It is no defense that the person so manufacturing or selling vinegar below the standard has no knowledge that it is not within the standard prescribed.

People v. Snowberger, 71 N. W. R., 497.

We have examined the other questions raised, but do not deem it necessary to discuss them. They relate mostly to offers of testimony which the court below ruled out; and, we think, properly.

The testimony was uncontradicted that the vinegar sold was not in compliance with the statute. The sale was admitted.

The court was not in error in directing the verdict. The conviction must be affirmed.

Grant, C. J., did not sit.

The other justices concurred.



ABSTRACT OF THE DAIRY AND FOOD LAWS OF THE UNITED STATES.

The following abstract of the dairy and food laws of the United States, and of the several states, was made by the dairy division of the Department of Agriculture at Washington, and is reprinted as being of interest to all friends of pure food legislation, and of value to all in authority in this state who are charged with the enactment and execution of laws of this character.

In the following abstracts it is aimed to state briefly the principal features of the dairy laws, omitting matters of minor interest, as references to penalties. details of enforcement, disposition of fines, etc.

States having dairy commissioners or other officers specially charged with the enforcement of dairy laws, usually give such officers necessary authority for securing evidence, having analyses made, and conducting prosecutions; it is also customary to allow them necessary traveling expenses in addition to the regular salarv.

When a subject is followed by the words "No law" it should be understood there is no special law on that subject. It may, however, be covered by a purefood law, an abstract of which is given in another place.

UNITED STATES.

MILK .- Import duty on fresh milk, 2 cents per gallon. Condensed Milk .- Import duty on preserved, condensed, or sterilized milk, 2 cents per pound.

BUTTER.—Butter is defined as the food product usually known as butter and made exclusively from milk or cream, with or without salt or color. Import duty, 6 cents per pound.

CHEESE.—Cheese is defined as the food product known as cheese and made exclusively from milk or cream, with or without coloring matter. Import duty, 6 cents per pound.

OLEOMARGARINE AND FILLED CHEESE .- Special taxes are imposed upon manufacturers, wholesale dealers, and retail dealers. Each original package must bear a prescribed label. Regulations concerning reports, etc., of manufacturers and branding of all packages not provided for by the law are made by the commissioner of internal revenue. Oleomargarine.—Oleomargarine is defined as certain (enumerated) manufactured substances, extracts, mixtures, and compounds, including such mixtures and compounds with butter, made in imitation of butter and intended to be sold for butter. Taxed 2 cents per pound. Import duty 6 cents, and internal-revenue tax on imported oleomargarine, 15 cents per pound. Filled Cheese. Filled cheese is defined as substances made from milk or skimmed milk with admixture of butter, oils, or compounds foreign to such milk, and made in imitation of cheese. Taxed 1 cent per pound. Import duty, 6 cents, and internal-revenue tax on imported filled cheese, 8 cents per pound. Original packages shall be plainly branded "Filled cheese," and signs must be displayed where sales are made. MISCELLANEOUS.—Import duty on sugar of milk, 5 cents per pound.

ALABAMA.

MILK .- (No law.)

BUTTER.—(No law.) CHEESE.—(No law.)

IMITATION BUTTER.—No article which is in imitation of pure yellow butter and is not made wholly from pure milk and cream shall be manufactured, sold, or

used in any public eating place, hospital, or penal institution, etc.; but oleomargarine, free from color or other ingredient to cause it to look like butter, and made in such manner as will advise the consumer of its real character, is permitted. It must be stamped with its name.

Imitation Cheese.—(No law.)

MISCELLANEOUS .- (No law.)

ARIZONA.

(No dairy laws.)

ARKANSAS.

MILK.—(No law.)

BUTTER.—Butter is defined as a product manufactured exclusively from milk and cream.

CHEESE .- (No law.)

IMITATION BUTTER.—Substitutes for butter, whether in wholesale or retail packages, shall be plainly labeled "Adulterated butter," "Oleomargarine," or such other name as shall properly describe them. In hotels, etc., dishes containing said articles must be plainly marked in same manner.

IMITATION CHEESE .-- (No law.)

MISCELLANEOUS. - (No law.)

CALIFORNIA.

DAIRY BUREAU.—Three resident citizens, experienced in manufacture of dairy produce, constitute a state dairy bureau. Period of office four years; no compensation. Issue and record cheese brands. Their agent receives \$1,200 salary and is allowed assistants and chemists when necessary. Annual appropriation for bureau, \$5,000.

MILK .- (No law.)

BUTTER.—Roll butter when sold must be full weight.

CHEESE.—All cheese must be branded "Califorina full cream cheese," if it is made from pure whole milk and contains at least 30 per cent. fat; "California haif-skim cheese," if made from pure milk and has at least 15 per cent. fat; "California skim cheese," if made from pure skim milk. Fancy cheeses are excepted.

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese is defined as any article not produced from pure milk or cream, sait, rennet, and harmless coloring matter, which is in semblance of butter or cheese and designed as a substitute for such. Shall not be colored to imitate butter or cheese, and must be in such form as will advise consumer of its real character. Every package must be plainly marked "Substitute for butter," or "Substitute for cheese," and accompanied by a statement giving name of manufacturer, ingredients, etc., a copy of which must be given to each purchaser, with verbal notice, at the time of sale, in connection with which words like "creamery," "dairy," etc., are prohibited. Patrons of eating places shall be notified if substitutes of butter or cheese are used. Prohibited in state charitable institutions.

MISCELLANEOUS .- (No law.)

COLORADO.

Dairy Commissioner.—The dairy commissioner, appointed by the governor, shall be a practicable dairyman; period of office, two years; salary, \$1,200. May employ a deputy at salary of \$1,000 per year and a chemist at \$10 per day. Issues cheese brands. State appropriation \$2,000 per annum for 1895 and 1896.

MILK .- (No law.)

BUTTER.—(No law.)

CHEESE.—All cheese must be branded "Colorado full cream cheese," if not less than 35 per cent. of total solids consists of butter fat; all containing less than this amount of fat, "Skim cheese."

IMITATION BUTTER AND CHEESE.—All articles not produced from pure milk or cream, in imitation of pure cheese or yellow butter, are prohibited; but oleo-

margarine and filled cheese are permitted if free from color or other ingredient to cause them to look like butter or cheese; they must be made in such form and sold in such manner as will advise the consumer of their real character. Cheese containing any foreign fats, oleaginous substances, rancidibutter, etc., shall be branded "Imitation cheese."

MISCELLANEOUS .-- (No law.)

CONNECTICUT. +

DAIRY COMMISSIONER.—The dairy commissioner is appointed by the governor; period of office, two years; salary, \$1,500 per year. He may appoint a deputy at salary of \$1,200 per year. Issues signs to dealers in imitation-butter. Office expenses limited to \$900 per year. Two thousand five hundred dollars annually appropriated to the Connecticut Agricultural Experiment Station to carry out the provisions of the pure-food act.

MILK.—The Connecticut Agricultural Experiment Station may fix standard.

Skimmed milk.—Skimmed milk must be plainly labeled. Adulterated milk.—

The sale or delivery of adulterated, tainted, or diseased milk to a butter or cheese factory is prohibited.

BUTTER.—Tub butter in prints, pats, etc., must be labeled "Tub butter."

CHEESE .- (No law.)

IMITATION BUTTER.—Imitation butter, defined as any article resembling butter inappearance and not made wholly, salt and coloring matter excepted, from
cow's milk, is prohibited; but oleomargarine or imitation butter, free fromcolor or other ingredient to cause it to look like butter, and made in suchform and sold in such manner as will advise consumer of its real character,
is permitted. Words like 'butter," "dairy," etc., shall not form a part of itsname or appear on its package. Imitation butter shall be sold only in labeled packages, or registered places which display signs, and purchasers shall
be informed orally of the character of the article at the time of sale. Useof imitation butter in public eating places, bakeries, etc., must be made
known by signs.

IMITATION CHEESE .-- (No law.)

MISCELLANEOUS .-- (No law.)

PURE FOOD.—Any article of food or drink is deemed adulterated if any inferior or injurious substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is colored to conceal inferiority, if it contains any preservative not known to the purchaser, if it is decomposed or diseased, or the product of a diseased animal, etc., with certain exceptions, such articles are prohibited.

DELAWARE.

MILK.—(No law.)
BUTTER.—(No law.)

CHEESE .- (No law.)

IMITATION BUTTER AND CHEESE.—The manufacture or sale of any article not produced from unadulterated milk or cream, which is in imitation of pure yellow butter or designed to take the place of pure cheese, is prohibited; but oleomargarine is permitted if in a distinct form, free from butter color and sold in such manner as to show its real character; it shall be plainly marked "Oleomargarine."

MISCELLANEOUS .- (No law.)

DISTRICT OF COLUMBIA.

MILK.—Milk standard, 9 per cent. solids not fat, 3½ per cent. fat. Permit tosell milk must be obtained from health officer. Skimmed milk.—Skim milk standard, 9.3 per cent. total solids. Must be plainly marked "Skim milk." Aduiterated milk.—Diseased and unwholesome milk is prohibited. Cream— Cream standard, 20 per cent. fat.

BUTTER AND CHEESE.—Butter and cheese shall be made exclusively of milk or

cream, with or without common sait. Butter standard, 83 per cent. fat and not more than 12 per cent. water or 5 per cent. sait.

IMITATION BUTTER AND CHEESE.—Substances in semblance of butter or cheese, not made exclusively of milk or cream, but with the addition of melted butter or any oil, shall be plainly branded on each package "Oleomargarine," and a label, similarly printed, must accompany each retail sale.

MISCELLANEOUS.—Health officer's regulations govern dairies and sale of milk.

PURE FOOD.—Any food or drink is deemed adulterated if any inferior or injurious substance has been mixed with it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is decomposed or diseased, if it is colored to conceal inferiority, etc.; with certain exceptions, which shall be made known to the purchaser, such articles are prohibited.

FLORIDA.

MILK.—(No law.)
BUTTER.—(No law.)
CHEESE.—(No law.)
MILK.—(No law.)
MILK.—(No law.)

IMITATION BUTTER.—The sale of any spurious preparation, purporting to be butter, is prohibited. Guests at hotels, etc., must be notified if oleomargarine or other spurious butter is used.

IMITATION CHEESE .-- (No law.)

GEORGIA.

MILK.—Milk standard, 3½ per cent. fat, 8½ per cent. solids not fat. Skimmed milk.—Skimmed milk is defined as milk below the standard. Adulterated milk.—The sale of adulterated, impure, or diseased milk is prohibited.

BUTTER.—(No law.) CHEESE.—(No. law.)

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese are defined-as any article not produced from pure milk or cream—salt, rennet, and coloring matter excepted—in semblance of butter or cheese and designated to be used as a substitute for either. Shall not be colored to resemble butter or cheese. Every package must be plainly marked "Substitute for butter" or "Substitute for cheese," and each sale shall be accompanied by verbal notice and by a printed statement that the article is an imitation, the statement giving also the name of the producer. The use of these imitations in eating places, bakeries, etc., must be made known by signs.

MISCELLANEOUS .- (No law.)

IDAHO.

MILK .- (No law.)

BUTTER .- (No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Brand required for sale of oleomargarine or butterine, imitation butter, or mixture imitating butter. These shall not be sold as butter.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS .-- (No law.)

PURE FOOD.—The adulteration of any article of food or drink with fraudulent intent, or sale of same as unadulterated, is a misdemeanor.

ILLINOIS.

MILK.—Cans and vehicles used in the retail trade of milk shall be marked with the dealer's name and the locality whence milk comes. Skimmed milk.—Skimmed milk may be sold as such, and each can or vessel shall be plainly marked "Skimmed milk." Adulterated milk.—The sale of adulterated or diseased milk, or its delivery to a factory, is prohibited. Adulteration after

delivery to a factory is a misdemeanor. Condensed milk.—The addition of sugar to condensed milk is permitted.

BUTTER .- (No law.)

CHEESE .- (No law.)

IMITATION BUTTER.—Imitation butter is defined as any article not produced from pure milk or cream—salt, rennet, and coloring matter excepted—in semblance of butter and designed to be uesd as a substitute for it. Shall not be colored to resemble butter. All packages must be plainly branded "Oleomargarine," "Butterine," "Substitute for butter," or "Imitation butter." Each sale shall be accompanied by notice to the purchaser that the substance is imitation butter.

IMITATION CHEESE.—Imitation cheese must be distinctly marked with the true and appropriate name of the article, and label bearing such name must be delivered with same when sold.

MISCELLANEOUS.—Care and food of dairy cows regulated. Co-operative creameries and butter factories shall give bond in the penal sum of \$6,000 and keep a monthly report of their operations posted conspicuously in factory for the inspection of patrons. The state's attorney is charged with the law relating to "Substitutes for butter."

INDIANA.

MILK.—Adulterated milk.—The sale of adulterated, diseased, etc., milk to anyone or its delivery to a factory is prohibited.

BUTTER AND CHEESE.—The use of poisonous or deleterious substances in the manufacture of butter and cheese is prohibited.

IMITATION BUTTER.—Butter other than that made from pure milk, when sold or used in hotels, etc., must be plainly labeled "oleomargarine."

IMITATION CHEESE.—(No law.)

MISCELLANEOUS .- (No law.)

IOWA. ✓

DAIRY COMMISSIONER.—The dairy commissioner is appointed by the governor; shall have practical knowledge of dairying; term of office, two years; salary, \$1,500 per annum, shall give bond for \$10,000. He may employ clerical help at \$75 per month and an agent at \$3 per day in each city of over 10,000 inhabitants to collect milk samples; shall issue permits to milk dealers and keep a record of same; shall furnish certified test bottles to creamerles. In addition to the regular appropriation, an appropriation of \$3,900 is made for the conduct of the office.

MILK.—Milk standard, 12½ per cent. solids, 3 per cent. fat. Milk dealers in cities shall register with the dairy commissioner and receive permits from him. Skimmed milk.—Skimmed milk may be sold as such. Cream.—Standard 15 per cent. fat...Adulterated milk.—The sale of adulterated, unwholesome, and diseased milk, or delivery to a factory, is prohibited.

BUTTER .- (No law.)

CHEESE.—Skimmed milk cheese.—Skimmed milk cheese shall be plainly marked.

IMITATION BUTTER AND CHEESE.—Imitation butter or cheese is defined as any article not produced from pure milk or cream—salt, rennet, and coloring matter excepted—in semblance of butter or cheese and designed to be sold as a substitute for either of them. Shall not be colored to resemble butter or cheese. Every package shall be plainly marked "Substitute for butter," or "Substitute for cheese," and each sale shall be accompanied by a verbal notice and by a printed statement that the article is an imitation, the statement giving also the address of the maker. The use of these imitations in hotels, bakeries, etc., must be made known by signs.

MISCELLANEOUS.—Tests of milk in factories, etc., must be accurate. Persons engaged in dairying shall keep their premises in hygienic condition and shall report statistics, etc., to the dairy commissioner. Care of cows is regulated.

KANSAS.

MILK.—Adulterated mlik.—The sale of adulterated, skimmed, tainted, or diseased milk, or its delivery to any butter or cheese factory, is prohibited.

BUTTER.—(No law.)

·CHEESE.—(No law.)

IMITATION BUTTER .- (No law.)

IMITATION CHEESE .- (No law.)

MISCELLANEOUS .-- (No law.)

Pure Food.—Any article of food or drink is deemed adulterated if any injurious or inferior substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is diseased or tainted, if it is colored to conceal inferiority. With certain exceptions, which must be plainly labeled, such articles are prohibited.

KENTUCKY.

MILE.—Skimmed milk.—Skimmed milk shall not be sold with intent to defraud. Adulterated milk.—Adulterated milk, or milk from a diseased animal or an animal fed on "brewers' slop," etc., shall not be sold or used in the manufacture of butter or cheese.

BUTTER.—(No law.)

*CHEESE .- (No law.)

IMITATION BUTTER.—Oleomargarine, butterine, or kindred compound, made in such form and sold in such manner as will advise the customer of its real character, and free from color or other ingredient to cause it to look like butter, is permitted.

MISCELLANEOUS .- (No law.)

IMITATION CHEESE .-- (No law.)

PURE FOOD.—An article of food or drink is deemed adulterated if any inferior or injurious article has been added to it, if it is an imitation of or sold as another article, if it is colored to conceal inferiority, if it is diseased or decomposed, etc. Such articles are prohibited. Inspections and analyses are made under the supervision of the Kentucky Experiment Station. Falsely branding products to be sold is prohibited.

LOUISIANA.

MILK .- (No law.)

BUTTER .-- (No law.)

*CHEESE.—(No law.)

IMITATION BUTTER.—Such substances as oleomargarine, butterine, bogus butter, etc., shall be plainly labeled to indicate their composition. They shall not be sold as butter.

IMITATION CHEESE .-- (No law.)

MISCELLANEOUS .-- (No law.)

MAINE.

MILK.—Milk standard, 12 per cent. solids, 3 per cent. fat. Skimmed milk.—Skimmed milk must not be sold as pure milk. Adulterated milk.—Sale of adulterated and diesased milk, and that from cows fed on distillery or brewery refuse. etc.. is prohibited.

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually so called, and manufactured exclusively from milk or cream, with salt and rennet, and with or without coloring matter.

IMITATION BUTTER AND CHEESE.—Any article in imitation of yellow butter or cheese and not made exclusively of milk or cream is prohibited.

MISCELLANEOUS.—All glassware used for testing milk delivered at factories must be tested for accuracy under the direction of the director of the experiment station. Specific gravity of sulphuric acid used in testing milk or cream 14 Dairy.

must be at least 1.82. Persons using the Babcock test for apportioning the value of milk or cream must hold a certificate from the superintendent of

the dairy school of the State College of Agriculture.

Milk inspectors shall be appointed in towns of more than 3,000 inhabitants, and may be appointed in smaller towns. They are given special powers for making inspections, and are required to keep a record of the names and addresses of all dealers.

MARYLAND.

MILK .- (No law.)

BUTTER .- (No law.)

CHEESE.—Cheese made from pure skimmed milk is permitted.

IMITATION BUTTER AND CHEESE.-The manufacture, sale, or use in public eating places of any article in imitation of and designed to take the place of pure butter or cheese, and not made wholly from milk or cream, is prohibited. Mixtures of any animal fats or animal or vegetable oils with milk, cream, or butter shall be uncolored, and marked with names and percentages of adulterants, and this information shall be given to purchasers.

MISCELLANEOUS. - The mayor and city council of Baltimore shall make regulations for the sale, and provide by ordinance for the inspection, of milk and food products; shall provide for and fix compensation of inspectors and

State Board of Health is given special powers and assistance to detect and expose adulterations and corruptions of foods and to conduct prosecutions. Two thousand five hundred dollars is annually appropriated for making chemical and scientific examinations of suspected foods and drinks.

Pure Food.—Diseased, corrupted, or unwholesome milk or other foods shall not be sold. Mixing or coloring any article of food or drink with any ingredient for gain, unless some is handled under its true name and its package is plainly marked, etc., is prohibited.

massachusetts. +

DAIRY BUREAU .- The governor shall appoint three members of the board of agriculture to constitute a dairy bureau; term of office, three years; compensation, \$5 per day of actual service. Secretary of board is executive officer of the bureau, and receives therefor \$500 per annum in addition to salary from board. Governor may appoint an assistant to the secretary; salary, \$1,200 per annum. Agents, assistants, experts, etc., may be employed when

necessary. Expenditures limited to \$7,000 a year.

MILK .- Milk standard in April, May, June, July and August, 12 per cent. total solids-9 per cent. solids not fat, 3 per cent. fat; in other months, 13 per cent. total solids-9.3 per cent. solids not fat, 3.7 per cent. fat. Milk dealers are registered and peddlers are licensed. Skimmed milk.—Skimmed milk includes that below the standard for pure milk. It must contain at least 9.3 per cent. solids not fat, and be plainly marked "Skimmed milk." Condensed milk.—Condensed milk must be labeled with name of manufacturer; if in hermetically sealed packages, brand and contents must be given. Adulterated milk. The sale of adulterated, diseased, or poor milk or its delivery is prohibited. Convictions for selling adulterated milk are advertised in the newspapers.

BUTTER AND CHEESE .-- For the purpose of an early act, butter and cheese are defined as products usually known by these names and made exclusively from milk or cream, with salt or rennet, and with or without coloring matter.

IMITATION BUTTER.—An article made wholly or partly out of any fat or oil, etc., not from pure milk or cream, and which is in imitation of yellow butter, is prohibited: but oleomargarine, free from color or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted. It shall not be sold as butter, nor shall words like "dairy," "creamery," etc., or the name of any breed of dairy cattle, be used in connection with it. All packages ex-



posed for sale must be plainly marked "Oleomargarine," and labels similarly marked must accompany retail sales. Stores where it is sold and wagons used for delivery must display signs, and hotels, etc., using it must notify guests. Persons selling oleomargarine must be registered and conveyors licensed.

IMITATION CHEESE.—All articles in imitation of or intended as substitutes for cheese, not made exclusively of milk or cream, etc., must be plainly marked "Imitation cheese." Labels similarly marked must accompany retail sales.

MISCELLANEOUS.—Milk inspectors are appointed by the mayor and aldermen of cities and selectmen of towns. They are charged also with the inspection of imitation butter and cheese. Feeding garbage to milch cows is prohibited.

MICHIGAN.

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner is appointed by the governor; term of office, two years; salary, \$1,200 per annum; must give bonds for \$10,000; shall appoint a deputy commissioner at \$1,000, and a chemist at not more than \$1,200 per year, and may appoint two clerks at \$60 per month each, six inspectors at \$3 per day, and an assistant chemist at \$1,000 per year. Authority extends to all food and drink products. Commissioner shall make detailed annual reports to the governor and issue popular monthly reports on foods. adulterations, etc. Annual appropriation, \$18,000.

MILK.—Milk standard, 12½ per cent. total solids, 3 per cent. fat, specific gravity between 1.029 and 1.033. Skimmed milk.—The specific gravity of skimmed milk must be between 1.032 and 1.037. It may be sold for what it is from cans plainly labeled "Skimmed milk." Adulterated milk.—The sale of adulterated, diseased, etc., milk to any person or its delivery to a factory is prohibited; milk from sick cows or those fed on distillery refuse, etc., is forbidden.

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese shall not contain any poisonous or deleterious substances. Proprietors of butter and cheese factories purchasing milk from more than three persons shall register with the dairy and food commissioner. A registered brand, with a suitable device and the words "Michigan full-cream cheese," for use on full-cream cheese and their packages will be furnished for \$1 to factories applying to the commissioner. False brands are prohibited.

IMITATION BUTTER.—Any article not made wholly from milk or cream, and containing melted butter, fats, or oil not produced from milk, and which is in imitation of pure butter, is prohibited; but oleomargarine, free from color or any ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted; its sale as butter is prohibited; signs must be displayed where it is sold or used, and its original packages must be plainly marked "Oleomargarine" if the article contains suet or tailow, or "Butterine" if it contains lard; retail sales shall be made from a package so marked, and a label similarly printed and bearing the name of the manufacturer shall be delivered with each sale; shall not be used in any public institution.

IMITATION CHEESE.—Any article in semblance of pure cheese, containing melted butter or fats or oils not produced from milk, is prohibited.

MISCELLANEOUS.—The police commissioners of Detroit shall appoint an officer to act as milk inspector in that city; he shall inspect dairies, milk shops, etc., in Wayne County. Common councils or boards of trustees in cities and towns may appoint and fix the compensation of milk inspectors.

PURE FOOD.—An article of food is deemed adulterated when inferior substances have been mixed with it; when any valuable constitutent has been abstracted; if it is in imitation of or sold as another article; if it is decomposed or from an unhealthy animal; if it is colored to conceal inferiority; if it contains any poisonous or injurious substances, etc.; with certain common exceptions, such articles are prohibited.



MINNESOTA +

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner is appointed by the governor; term of office, two years; salary, \$1,800 per annum. He may appoint a secretary at a salary of \$1,200 per year, and appoint and fix the compensation of such assistants, chemists, agents, and counsel as are necessary; blennial reports are made to the legislature; his authority extends to other foods. Fifteen thousand dollars is annually appropriated for his work.

MILK,—Milk standard, 13 per cent. solids, 3½ per cent. fat. Persons receiving milk shipped by train or cars must empty the vessels before the milk is sour, and immediately clean them. Cream.—Cream standard, 20 per cent. fat. Skimmed milk.—Skimmed milk may be used for making skim cheese. Cans containing skimmed milk for sale must be plainly marked "Skimmed milk." Adulterated milk.—Unclean, unhealthy, adulterated, etc., milk includes that drawn from cows near the time of parturition, or fed on distillery waste, etc. (ensilage excepted); its sale or exchange or delivery to any factory, or its use for making cream or any food, is prohibited.

BUTTER.—Butter is defined as the product usually known by that name, and manufactured exclusively from milk or cream, or both; it shall not be falsely branded.

CHEESE.—At least 45 per cent. of the total solids of cheese must be fat. It shall not be falsely branded. A registered brand with a motto and the words "Minnesota state full cream cheese," for use on full cream cheese and their packages, is issued to factories upon application to the commissioner. Skim cheese.—Skim cheese is that below the standard for full cream cheese; it is permitted if the packages are plainly marked "Skim cheese;" a placard must be displayed where it is sold.

IMITATION BUTTER AND CHEESE.—Any article not made wholly from milk or cream, which is in imitation of and designed to take the place of pure butter or cheese, is prohibited; but such imitations of butter are permitted if colored bright plnk. Butter made by any process by which casein and other ingredients of milk are made to replace pure fat shall be plainly marked "Patent butter," and a printed card stating its ingredients shall be given to each purchaser.

MISCELLANEOUS.—Milch cows shall not be kept in a crowded or unhealthy condition nor fed unwholesome food or any that produces impure milk.

Unless all the milk delivered is bought by a factory none of it shall be used by the operators for themselves without the consent of the owners; such factories shall keep a detailed account of their operations, open to the inspection of patrons.

Proprietors of factories, shippers of milk, and milk sellers shall make regular detailed reports to the commissioner. Milk dealers in towns of more than 1,000 inhabitants shall annually obtain from the commissioner, at the cost of \$1, a license giving certain information regarding the conduct of their business.

Any city council may provide for the inspection of milk, dairies, and herds supplying milk for its use.

MISSISSIPPI.

MILK.—(No law.) BUTTER.—(No law.) CHEESE.—(No law.)

IMITATION BUTTER.—Packages of oleomargarine or similarly manufactured butters shall be plainly labeled with the correct name of their contents, and the product shall be sold by that name. A privilege tax of \$5 is imposed upon persons selling the articles named.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—It is unlawful to milk the cow of another, or to confine her with intent to take her milk, without the consent of the owner.

MISSOURI.

MILK .- (No law.)

BUTTER .- (No law.)

CHEESE.—Cheese made from milk testing at least 3 per cent. fat, or cream from the same, is deemed a full cream cheese. Skim cheese.—Any cheese not made from pure milk testing at least 3 per cent. fat, or cream from the same, shall be plainly branded "Skimmed milk cheese," or "Not full-cream cheese," and its true name given.

IMITATION BUTTER.—Imitation butter is defined as every article not produced wholly from pure milk or cream, made in semblance of and designed to be used as a substitute for pure butter; it shall not be sold as butter; shall not be colored to resemble butter unless it is to be sold outside the state; original packages shall be plainly stamped "Substitute for butter;" in hotels, etc., vessels in which it is served must be marked "Oleomargarine," or "Impure butter."

IMITATION CHEESE.—Any article not produced wholly from pure milk or cream and designed to take the place of cheese shall have its original packages stamped with its true name.

MISCELLANEOUS.—State board of agriculture is charged with enforcement of act relating to butter substitutes and cheese branding. Appropriation, \$5,000 for two years.

All cities and towns have power to license dairies, provide for inspection, etc.

MONTANA.

MILK .- (No law.)

BUTTER .- (No law.)

CHEESE.—(No law.)

IMITATION BUTTER AND CHEESE.—Any article in semblance of butter or cheese, and not made wholly from milk or cream, must be plainly labeled "Oleomargarine," or "Imitation cheese," and a printed label bearing the same word or words must be delivered to the purchaser with retail sales. Places where these articles are sold or used must display signs, and information as to their character be given if requested. Dealers must pay a license of 10 cents a pound on each pound sold.

MISCELLANEOUS.—Cows shall not be kept in unsanitary places, or fed food that produces unwholesome milk.

NEBRASKA.

MILK.—Adulterated milk.—The sale of adulterated, skimmed, diseased, or tainted milk, or its delivery to a factory, is prohibited.

BUTTER AND CHEESE.—No poisonous or deleterious matter shall be used in the manufacture of butter or cheese.

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese are defined as any article made in semblance of and designed to be used as a substitute for pure butter or cheese, and not produced wholly from pure milk or cream, salt, renet, and harmless coloring matter. These articles, including any having melted butter added to them, shall not be colored to resemble butter or cheese; shall be plainly marked "Imitation butter," or "Imitation cheese;" verbal and printed information of the character of the articles, and address of the maker, shall be given at time of sale; signs shall be displayed in public eating places where used.

MISCELLANEOUS.—Use of cream by employees of a factory, without permission of patrons, is prohibited.

PURE FOOD.—Any article of food or drink is deemed adulterated if any inferior or injurious substance has been mixed with it, if any valuable constituent has been removed, if it is in imitation of or sold as another article, if it is diseased, decomposed, infected, if it is colored to conceal inferiority, etc. With certain exceptions, which shall be labeled, such articles are prohibited.

NEVADA.

MILK.—Skimmed milk.—Skimmed milk may be sold as such.—Adulterated milk.—
The sale or exchange of adulterated milk, or milk from cows which are improperly cared for, or fed "swill" or other decomposed matter is a misdemeanor.

BUTTER.—(No law.)

CHEESE .- (No law.)

IMITATION BUTTER.—Any article in semblance of butter but not made exclusively of milk or cream, or containing melted butter, shall be in packages plainly marked "Oleomargarine."

IMITATION CHEESE .-- (No law.)

MISCELLANEOUS.—Milk inspectors are appointed and their compensation fixed by board of county commissioners. They shall inspect milk sold by venders and prosecute violations. Care of cows regulated.

NEW HAMPSHIRE.

MILK.—Milk standard, 13 per cent. solids. It shall be sold by wine measure, and the capacity of vessels shall be marked upon them. Skimmed milk.—Milk from which any cream has been removed can be sold only from vessels plainly marked "Skimmed milk." Adulterated milk.—The sale of adulterated, unwholesome, diseased, etc., milk, and that from cows fed on brewery refuse, etc., is prohibited.

BUTTER AND CHEESE.—"Butter" and "cheese" are understood to mean the products usually known by those names, and which are manufactured exclusively from milk or cream, with salt and with or without coloring matter, and, if cheese, with rennet.

IMITATION BUTTER AND CHEESE.—Any article not made wholly from unadulterated milk or cream, which is in imitation of pure yellow butter or cheese, is prohibited, unless in packages plainly marked "Adulterated butter," "Oleomargarine," or "Imitation cheese." A label printed with the words on the original package shall be delivered with each retail sale. Oleomargarine, free from color or ingredient to cause it look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted. Notice of the use of substitutes for butter in hotels, etc., shall be given to patrons.

MISCELLANEOUS.—The mayor and aldermen of ctiles and the selectmen of towns may appoint and fix the compensation of milk inspectors. In towns having inspectors, all milk dealers must register and obtain, at the cost of 50 cents per year, a license which gives full details as to the conduct of their business. Inspectors are given special powers for making inspections of milk, butter, etc., and names of persons convicted of selling adulterated milk are published.

NEW JERSEY. +

DAIRY COMMISSIONER.—Dairy commissioner is appointed by state board of health; term of office, three years; salary, \$2,000 per annum. He may appoint and fix the compensation of such assistants, chemists, agents, clerks, and counsel as are necessary. Expenses are limited to \$10.000 per year. An additional appropriation of \$1,000 is made for the enforcement of the pure-food law. Authority is extended to all foods and drugs.

MILK.—Milk standard, 12 per cent. solids. Skimmed milk.—Skimmed milk shall be sold only in or from cans plainly marked "Skimmed milk." In cities of the first class it is prohibited. Adulterated milk.—The sale of adulterated or unwholesome milk, or its delivery to a cheese factory, is prohibited. It is defined as any which has been adulterated by the addition of any substance, or any from cows poorly cared for or fed unwholesome foods, or that has been exposed to infection by diseased persons, etc.

BUTTER AND CHEESE.—The terms natural butter and natural cheese are taken to

mean the products usually so called, made exclusively from milk or cream, with sait and rennet and with or without coloring matter or sage. Each butter or cheese package must be branded with its weight and the name of the manufacturer.

IMITATION BUTTER AND CHEESE.—Any article made wholly or partly out of any fat, oil, etc., not from pure milk or cream, artificially colored in imitation of pure yellow butter, is prohibited; but oleomargarine and imitation cheese are permitted, if free from artificial color and in original package, encircled by a wide black band bearing the name of the maker and having the name of the contents plainly branded on them with a hot iron. Retail sales shall be accompanied by a printed card on which the name of the substance and the address of the maker are plainly printed, and the customer shall be orally informed of the character of the article at the time of sale.

MISCELLANEOUS.—It is unlawful for any person to use a milk can belonging to another and marked with the owner's name or initials without his consent. If they are so used and found, their contents may be emptied.

Cows shall be properly cared for and fed. Milch cows kept in towns shall be registered. State dairy commissioner shall be notified when any of them are supposed to be diseased.

PURE FOOD.—An article of food or drink is deemed to be adulterated if any inferior or injurious substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is diseased or decomposed, if it is colored to conceal inferiority, etc. With the exception of articles named by the board of health and ordinary articles of food, which shall be branded, such articles are prohibited.

NEW MEXICO.

MILK.—(No law.)
BUTTER.—(No law.)
CHEESE.—(No law.)
IMITATION BUTTER.—(No law.)
IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—City councils shall provide for the inspection of dairy products. PURE FOOD.—Any article of food or drink shall not be knowingly sold if it is unhealthy, or if any valuable constituent has been removed from it, or if it contains ingredients not asked for, unless notice is given to the purchaser. The use of an injurious coloring matter or any diseased or decomposed substance in the manufacture of food is prohibited.

NEW YORK. →

COMMISSIONER OF AGRICULTURE.—Commissioner of agriculture is appointed by the governor; term of office, three years: salary, \$4,000 per annum. He may appoint assistant commissioners, chemists, clerks, agents, and counsel necessary for the work of his office and fix their compensation; also may appoint five expert butter and cheese makers to inspect factories, give instruction, etc.

MILK.—Milk standard. 12 per cent. solids, 3 per cent. fat. Pure milk is defined as sweet and unadulterated; pure cream is that taken from such milk. Milk shall not be kept in unclean vessels nor in unsanitary places. All cans, etc., containing milk to be sold in counties other than where produced, must be plainly branded with name of the county of production; vehicles from which it is sold must be similarly marked. Glass bottles are excepted from the provision, but they must bear the name of the vendor. Skimmed milk.—Skim milk may be delivered to skim-cheese factories, and except in New York and Kings counties, it may be sold as skimmed milk for use in the county where it is produced or an adjoining county. Condensed milk.—Condensed milk must be made from pure and wholesome milk, and its proportion of milk solids shall be in quantity the equivalent of 12 per cent. of milk solids in crude milk, of which 25 per cent. shall be fat. All packages of condensed milk shall be labeled with name of manufacturer, etc. Adulterated milk.—Adulterated milk is defined as any below the standard, or which has been

altered, or any from cows poorly cared for or fed certain unwholesome foods. Its sale, exchange, delivery to a butter or cheese factory, or use for any food is prohibited. Pure skim milk is excepted as above.

BUTTER AND CHEESE.—Butter and cheese are defined as the products of the dairy usually known by those terms, manufactured exclusively from pure unadulterated milk or cream, with or without salt, rennet, coloring matter, or sage. False brands are prohibited. County trade-marks may be adopted by county dairymen's associations. A registered brand, with the words "New York state full cream cheese," for use on full milk cheese and their packages, will be furnished to factories applying to the commissioner of agriculture. Skim cheese.—Pure skim cheese may be made from clean, pure skim milk.

IMITATION BUTTER AND CHEESE.—The terms oleomargarine, butterine, imitation butter, or imitation cheese mean any article in the semblance of butter or cheese not the usual product of the dairy and not made exclusively from unadulterated milk, or having any oil. lard, melted butter, etc., as a component part. Imitation butter.—The manufacture of oleomargarine or any article in imitation of butter wholly or partly from fats or oils not produced from milk, or the sale or the use in hotels, etc., of such articles, is prohibited. No article intended as an imitation of butter and containing oils, fats, etc., not from milk, or melted butter in any condition, shall be colored yellow. Imitation cheese.—The manufacture or sale of any article in imitation of pure cheese, into which any animal fat, oil, or butter, etc., is introduced, is prohibited.

MISCELLANEOUS.—Milch cows shall not be kept in an unsanitary condition nor be fed distillery waste, spoiled feeds, or any food that injures milk; sliage is permitted.

Unless factory operator buys all the milk delivered, he shall not use any of it or its products without consent of the owners, and he must keep an account of all factory operations for the inspection of his patrons.

NORTH CAROLINA.

MILK .- (No law.)

BUTTER.—Butter is defined as the product manufactured from fresh and puremilk and cream.

CHEESE .- (No law.)

IMITATION BUTTER.—Oleomargarine and butterine are defined as articles manufactured in imitation of butter, and which are composed of any ingredient or ingredients in combination with butter. Original packages shall be labeled with chemical ingredients and their proportions.

IMITATION CHEESE .- (No law.)

MISCELLANEOUS.—District, county, and city attorneys shall prosecute offenders.

PURE FOOD.—An article of food or drink is deemed adulterated if any inferior or injurious substance has been added to it, if any valuable constitutent has been removed, if it is an imitation of or sold as another article, if it is colored to conceal inferiority, if it is decomposed or unfit for food, etc.; with the exception of certain foods whose ingredients are known, such articles are prohibited.

NORTH DAKOTA.

DAIRY COMMISSIONER.—The state commissioner of agriculture and labor is exofficio state dairy commissioner.

MILK .- (No law.)

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually known by those names, and which are manufactured exclusively from milk or cream. Creameries and cheese factories shall brand each package of butter or cheese, giving quality of product, number of factory, etc. The brands are registered with the dairy commissioner.

IMITATION BUTTER.—Wholesale and retail packages of any article in semblance of butter, not made wholly from pure milk or cream, and containing melted butter, oils, or fats, etc., shall be plainly marked "Oleomargarine," "Butterine," or "Patent butter." Butter made by any process by which casein of

milk or other ingredients are made to take the place of pure fat shall be plainly marked "Patent butter." Sales of imitation butter shall be accompanied by a printed card giving the different ingredients.

IMITATION CHEESE.—Packages containing any substance designed to take the place of cheese, or in imitation of cheese, not produced wholly from pure milk, shall be stamped with the name of their contents. Sales of imitation cheese shall be accompanied by a printed card giving the different ingredients. MISCELLANEOUS.—(No law.)

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DAIRY AND FOOD COMMISSIONER.—State dairy and food commissioner is elected at the general elections; term of office, two years; salary, \$2,000 per year. He shall give bond for \$5,000. May appoint two assistant commissioners at salaries of \$1,000 per year; also appoint and fix the compensation of experts, chemists, agents, etc., as are necessary. Detailed annual report shall be made to the governor. Authority extends to all foods and drugs. Appropriation for 1898, \$42,600.

MILK.—Milk standard, 12 per cent. solids, 3 per cent. fat; in May and June, 11½ per cent. solids. Skinmed milk.—Skimmed milk shall not be sold as pure milk, but it may be used for making skimmed cheese; cans containing it shall be plainly marked "Skimmed milk." Condensed milk.—Condensed milk shall be made from pure fresh milk; the proportion of milk solids shall be equivalent to 12 per cent. in crude milk, of which 25 per cent. shall be fat; package containing same shall be plainly labeled with true name, brand, and name of manufacturer. Adulterated milk.—The sale of adulterated, skimmed, unclean, unhealthy, etc., milk, and that from sick cows, or its delivery to a factory, is prohibited.

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually known by those names, and made wholly from pure milk or cream, with salt, and with or without harmless coloring matter, and, if cheese, with or without rennet and sage. Butter.—Standard for butter, 80 per cent. fat. Cheese.—Register brands with the words "Ohio state full cream cheese" are issued to factories for use on full milk cheese and their packages upon application to the dairy and food commissioner and payment of fee of \$1. Skimmed cheese.—Cheese as above defined, and containing less than 20 per cent. fat, shall be plainly marked, and have its package marked, "Skimmed cheese:" packages sold at retail shall be accompanied by a label similarly marked; exposed contents of a package shall be labeled as above with a placard, and a sign "Skimmed cheese sold here" shall be posted where it is sold; delivery wagons shall display similar signs; notice shall be given of its use in public eating places.

IMITATION BUTTER AND CHEESE.-With the exceptions noted below, any article in imitation of natural butter or cheese, and containing animal or vegetable oils not produced from milk, or acids, is prohibited. Any other substance not made wholly from pure milk or cream, salt, and harmless coloring matter, and appearing to be butter or cheese, may be sold only under its true name. Each roll or package shall be plainly marked with its name and the names of its ingredients, and the same shall be on a label delivered with each sale, in connection with which the use of such words as "butter," "dairy," etc., are prohibited; information as to the substance shall be given at all retail sales; it shall not be packed so as to be concealed by a finer grade of butter; its use in state charitable and penal institutes is prohibited. Signs shall be used as described below. Oleomargarine.-Oleomargarine is defined as any substance not pure butter of not less than 80 per cent. butter fat, and made for use as butter. It is permitted if free from coloring matter or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its real character. Filled cheese.—Any article in imitation of cheese and not made wholly of milk or cream, etc., and containing any fats, oils, etc., not produced from milk or cream, shall be plainly marked, and have its package or the exposed contents of any package marked "Filled cheese:" each

retail sale shall be accompanied by a label similarly marked; it shall not be sold as cheese. Signs.—The signs "Oleomargarine sold here" or "Filled cheese sold here" shall be displayed wherever these articles are sold, and signs and verbal information are required in public eating places where the articles are used; wagons delivering filled cheese shall display signs.

MISCELLANEOUS.—Milch cows shall not be kept in a cramped or unhealthy condition, nor fed unhealthy food, or food which produces unwholesome milk. Keeping a false account of milk delivered to a factory is prohibited. False brands on dairy products or their imitations are prohibited.

PURE FOOD.—Any article of food or drink is adulterated, if any inferior or poisonous substance has been mixed with it, if any valuable ingredient has been removed, if it is an imitation of or sold under the name of another article, if it is decomposed, infected, or from a diseased animal, if it is colored to conceal inferiority, etc.; such articles are prohibited. But certain common mixtures are permitted if packages are labeled with names of ingredients, etc.

OKLAHOMA.

MILK.—Adulterated milk.—Milk from a cow not in proper condition of health, or any milk adulterated by water or a deleterious substance, or colored, shall not be sold or delivered.

BUTTER .- (No law.)

CHEESE .- (No law.)

IMITATION BUTTER .-- (No law.)

IMITATION CHEESE.—(No law.)

MISCELLANEOUS. -- (No law.)

PURE FOOD.—The adulteration of food or drink with fraudulent intent is a misdemeanor. Buyer shall be informed if provisions are diseased or unwholesome. Board of health shall destroy any impure article of food offered for sale.

OREGON. +

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner, who shall be well qualified in dairy matters, is elected by the legislative assembly; term of office, two years; salary, \$1,000 per year; shall enforce the law and give dairy instruction, and may appoint and fix compensation of one deputy in each county. Chemist of State Agricultural College shall make analyses. Annual appropriation for dairy commissioner, \$500.

MILK.—Milk standard, 12 per cent. volume of cream, 12 per cent. solids, 3 per cent. butter fat, specific gravity of 1.035 after the cream has been removed, Adulterated milk.—Adulterated milk shall be plainly marked as such; it is defined as any which is below the standard, or has been altered so as to reduce its quality. Impure milk is defined as the product of cows fed unwholesome foods, or near the time of parturition; it is prohibited.

BUTTER.—Butter standard, not more than 14 per cent. water.

CHEESE .- (No law.)

IMITATION BUTTER AND CHEESE.—Adulterated butter or cheese is any which is below the standard; or has been altered so as to reduce its quality, or any article in imitation of or sold under the name of butter or cheese; it shall be plainly marked, and printed notice shall be given when it is used in public eating places. Salt and annatto or butter color in which annatto is the principal ingredient, are not adulterants of dairy products. Dealers in oleomargarine or any imitation dairy product shall keep a record of all sales.

MISCELLANEOUS.—Milch cows shall be allowed 800 cubic feet of air space each, in stables; rows facing each other shall not be closer than 6 feet. Stables shall be ventilated and kept in a healthful condition. Manufacturers of darry products shall make detailed quarterly reports to the food commissioner. The boxes of any creamery or dairy shall not be used for selling the butter of another creamery or dairy.

PENNSYLVANIA. +

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner, who shall have practical experience in the manufacture of dairy products, is appointed by the governor; term of office, four years; salary, \$2,500 per year. He shall have a clerk, appointed by the governor; salary, \$1,500 per year. Authority extends to other foods. Commissioner shall make a detailed annual report.

MILK .- Milk standard, in cities of the second and third class, 121/2 per cent. solids, 3 per cent. fat, specific gravity at 60 degrees F. between 1.029 and 1.033. In towns of over 1,000 population, vehicles from which milk is vended shall be marked with names of vendors and locality of production; and in cities of the second class, dairies and milk depots shall be registered by the bureau of health. Skimmed milk.—Skimmed milk standard, in cities of the second and third class, 6 per cent. cream by volume, 21/2 per cent. fat by weight, specific gravity at 60 degrees F. between 1.032 and 1.037; milk from which any cream has been taken shall not be sold unless in a vessel plainly marked "skimmed milk." Adulterated milk.—The sale of adulterated, impure, or unwholesome milk is a misdemeanor. The addition of water or ice to milk is an adulteration, and milk from animals fed on distillery waste, or any substance in a state of putrefaction, or from sick or diseased cows, is declared to be impure and unwholesome. The sale of milk for human consumption, which contains boracic acid salt, salicylic acid, or other drug, is prohibited.

BUTTER .-- (No law.)

CHESE.—All cheese is divided into five grades, and each cheese and its package shall be plainly branded with the address of the maker, and the words "Full cream" if it contains not less than 32 per cent. of butter fat; "Three-fourths cream" if it contains not less than 24 per cent. butter fat; "One-half cream" if it contains not less than 16 per cent. butter fat; "One-fourth cream" if it contains not less than 8 per cent. butter fat; and "Skimmed cheese" if it contains less than 8 per cent. butter fat. Fancy cheese weighing less than five pounds, and pot cheese, are excepted.

IMITATION BUTTER AND CHEESE.—The manufacture or sale of any imitation, or adulterated butter or cheese, or any oleagious substance not produced from pure milk or cream and designed to take the place of butter or cheese, is prohibited. These articles shall not be used in any state, charitable, or penal institution.

MISCELLANEOUS.—Councils of cities and boroughs may provide for milk inspection.

PURE FOOD.—An article of food or drink is deemed adulterated if any inferior or injurious substance has been mixed with it, if any valuable constituent has been removed, if it is in imitation of or sold as another article, if it is diseased, decomposed, infected, if it is colored to conceal inferiority, etc. With certain exceptions which shall be labeled such articles are prohibited.

RHODE ISLAND.

MILK.—Milk standard, 12 per cent. soldis, 2½ per cent. fat; shall be osld by wine measure: vessels to be sealed by the sealer of weights and measures. Skimmed milk.—Skimmed milk is that which has been skimmed, or is below the standard: it shall be sold only from cans plainly marked, "Skimmed milk." Adulterated milk.—The sale or exchange of adulterated or diseased milk, or that from diseased cattle, or cows fed on distillery refuse, etc., is prohibited.

BUTTER.—All butter tubs shall be marked with their weights, and maker's initials. CHESS.—(No law.)

IMITATION BUTTER.—Any article not made wholly from milk or cream, but containing any melted butter or animal oil or fat not the product of milk, shall be plainly marked "Oleomargarine," and a label similarly printed shall be delivered with all retail sales.

IMITATION CHEESE .- (No law.)

MISCELLANEOUS.—The mayor and alderman of any city and the council of any town may elect and fix the compensation of milk inspectors. In Providence this is compulsory. Inspectors may appoint collectors of samples. All persons engaged in selling milk must register with the inspector and have their names on their wagons, etc. The authority of inspectors extends to other foods. Names of persons convicted are published.

SOUTH CAROLINA.

MILK.—Milk standard, 3 per cent. fat, 8½ per cent. other solids. Skimmed milk.—Skimmed milk is that below the standard; it and buttermilk may be sold under their own name. Adulterated milk.—The sale of unclean, diseased, adulterated, etc., milk, or its delivery for domestic use, or to be converted into any human food, is prohibited.

BUTTER .- (No law.)

CHEESE .- (No law.)

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese are defined as every article not produced from pure milk or cream, with or without salt, rennet, and harmless coloring matter, which is in semblance of and designed to be used as a substitute for butter or cheese; they shall not be colored to resemble butter or cheese; original packages shall be marked "Substitute for butter," or "Substitute for cheese;" shall not be sold as genuine butter or cheese, nor used in hotels, etc., unless signs are displayed.

MISCELLANEOUS —Statement of the chemist of the state college shall be accepted as evidence of analysis of imitation butter and cheese.

SOUTH DAKOTA.

MILK.—Adulterated milk.—The sale of unwholesome, diseased, or adulterated milk as the pure article is prohibited.

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually known by those names, and which are made wholly from milk or cream or both, with salt and rennet, and with or without coloring matter.

IMITATION BUTTER.—Any article not made wholly from pure milk or cream, and in imitation of pure butter, is prohibited; but oleomargarine, colored pink, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted; notice of its use in public eating places must be given.

IMITATION CHEESE .- (No. law.)

MISCELLANEOUS.—Health officers, sheriffs, etc., shall institute complaints, etc.

PURE FOOD.—Any article of food or drink which is diseased or unwholesome, or fraudulently adulterated or colored, for gain, is prohibited, unless plainly labeled, etc.

TENNESSEE.

MILK .- (No law.)

BUTTER.-(No law.)

CHEESE .- (No law.)

IMITATION BUTTER.—Any article which is in imitation of yellow butter and not made exclusively from pure milk or cream is prohibited; but eleomargarine, free from color or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its true character, and other imitations if uncolored and labeled with their correct names, are permitted; wholesale packages shall be plainly labeled, and a label shall accompany retail sales.

IMITATION CHEESE.—Imitation cheese may be manufactured under its true name; each package and its contents shall be stamped with the correct name, and a label, similarly printed, shall be delivered with retail sales.

MISCELLANEOUS .- (No law.)

PURE FOOD.—Any article of food or drink is adulterated if inferior substances have been added to it; if any valuable constituent has been abstracted; if it is an imitation of or sold as another article; if it contains any poisonous substance; if it is decomposed or diseased or from an unhealthy animal, etc. With certain common exceptions, such articles and all misbranded articles are prohibited.

TEXAS.

(No dairy laws.)

UTAH.

MILK.—Adulterated milk.—The sale or exchange of unclean, impure, etc., milk, or its use for making any kind of food, is prohibited.

BUTTER .- (No law.)

CHEESE .- (No law.)

IMITATION BUTTER AND CHEESE.—Any article in semblance of butter or cheese, and not made wholly from milk or cream, shall be plainly marked "Oleomargarine butter," or "Imitation cheese," and retail sales shall be made from packages so marked. Such articles shall not be colored to resemble butter or cheese.

MISCELLANEOUS .- (No law.)

VERMONT.

- MILK.—Milk standards, 12½ per cent. solids, 9¼ per cent. solids not fat; in May and June, 12 per cent. total solids. Standard measure is wine measure. Adulterated milk.—The sale of adulterated or skim milk, or milk below the standard, or its delivery to a factory, or the delivery of tainted milk to a factory, is prohibited.
- BUTTER AND CHEESE.—Butter or cheese shall not be marked "Creamery," unless made in a creamery; marking "Private creamery" is permitted if name of maker is also given. Butter.—Butter is defined as the product usually known by that name, and made wholly from milk or cream, with or without salt or coloring matter.
- IMITATION BUTTER OR CHEESE.—The manufacture of any article in imitation of butter or cheese which contains any animal fat, or animals or vegetable oils or acids not produced from pure milk or cream, is prohibited. *Imitation butter*.—Imitation butter for use in public eating places, or for sale, shall be colored pink.
- MISCELLANEOUS.—Payment for milk at factories is to be based on milk testing 4 per cent. fat. Result of analysis by State Agricultural Experiment Station shall be deemed competent evidence in prosecutions. Operators of factories shall not use any cream from the milk delivered to them, except with consent of owners.

VIRGINIA.

MILK.—Adulterated milk.—The sale of adulterated, skimmed, tainted, etc., milk, or its delivery to any creamery or cheese factory, is prohibited.

BUTTER.—Butter inspectors shall brand lots of butter offered for inspection according to quality.

CHEESE.—Skimmed cheese.—Skimmed cheese may be made from pure skimmed milk.

IMITATION BUTTER.—The manufacture or sale of any article made wholly or partly from any fat or oil not produced from unadulterated milk or cream, and which is in imitation of pure yellow butter, is prohibited; but oleomargarine, butterine or kindred compound, made in such form and sold in such manner as will advise the consumer of its real character, and free from color or other ingredient to cause it to look like butter, is permitted. Signs, with

the words "Imitation butter used here," shall be displayed in eating places, bakeries, etc., where the articles above named are used.

IMITATION CHEESE.—The manufacture or sale or use in public eating places, of any article in imitation of and designed to take the place of pure cheese, and not made wholly from milk or cream, is prohibited.

MISCELLANEOUS.—Factory employees shall not use cream without the consent of its owners.



WASHINGTON.

DAIRY COMMISSIONER.—Dairy commissioner is appointed by the governor; term of onice, four years; salary, \$1,200; must give bond for \$5,000. He may appoint deputies at \$3 per day when necessary; the services of chemists of state institutions are available; other chemists may be employed when necessary. Appropriation, \$3,000 per year. A state board of dairy commissioners, ex-officio, is constituted of the secretary of state, president of the agricultural college, and dairy commissioner. Members receive no salary, but are allowed traveling expenses. They report to the governor biennially.

MILK.—Milk standard, 3 per cent. fat, 8 per cent. solids not fat. Adulterated milk—Adulterated, skimmed, diseased, impure, etc., milk is defined as any below the standard, or which has been altered in any way, or is from cows diseased, poorly cared for, or fed unwholesome foods, or has been exposed to infection by disease germs, or has borax or salycilic acid added to it to prevent souring, etc. It shall not be sold as pure milk.

BUTTER .- (No law.)

CHEESE.—All cheese made by Cheddar process shall be branded with the name and location of factory, and the words "Washington full cream," if made wholly from pure milk and containing at least 30 per cent. fat; "Half skimmed," if containing at least 15 per cent. butter fat and made from milk from which not more than one-half the cream has been extracted; or "Skimmed," if made from pure skimmed milk. All cheese shipped from other states must be branded to indicate its quality, as above.

IMITATION BUTTER.—No article which is in imitation of pure yellow butter and is not made wholly from pure milk or cream, with or without harmless coloring matter, shall be manufactured, sold, or used in any public eating house or eleemosynary or penal institution, etc., but oleomargarine, free from color or other ingredient to make it look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted.

IMITATION CHEESE.—Any cheese not made from pure milk or cream or skimmed milk, with salt, rennet, and harmless coloring matter, is prohibited.

MISCELLANEOUS.—A record of the operations of every butter and cheese factory and private dairy (of 20 cows or more) where butter or cheese is made shall be kept and always open to the inspection of the dairy commissioner or any patron.

WEST VIRGINIA.

MILK.—Skimmed milk.—Skimmed milk may be used in the manufacture of cheese. BUTTER AND CHEESE.—Salt, rennet, and harmless coloring matter are permitted in the manufacture of butter and cheese.

IMITATION BUTTER AND CHEESE.—Any substance in semblance of butter or cheese, and not made wholly from pure milk or cream, and packages containing such substances, shall be plainly marked; printed statements explaining the character of the substance must be given to consumers. Oleomargarine.—Ocomargarine and artificial and adulterated butter shall be colored pink.

MISCELLANEOUS .- (No law.)

PURE FOOD.—The adulteration of any article of food or drink is a misdemeanor.



WISCONSIN.

- DAIRY AND FOOD COMMISSIONER.—Dairy and food commissioner is appointed by the governor; term of office, two years; salary, \$2,500 per annum. He may appoint an assistant commissioner at a salary of \$1,600, a chemist at \$1,800, and a clerk at \$900 per annum; also an inspecting agent at \$3 per day. Authority extends to all foods and medical drugs. Laboratory for all analytical work is provided. Commissioner shall make blennial reports, issue brands to cheese factories, enforce measures for cleanliness of dairies, factories, etc.
- MILK.—Milk standard, 3 per cent. fat and pure. Milk for city trade must be produced from healthy cows fed wholesome food. Barns, stables, etc., must be clean. Adulterated milk.—The sale of adulterated, diseased, etc., milk, or its delivery to a factory, is prohibited. Boracic and salicylic acids and injuroius antiseptics are prohibited. Standard tests may be made for proving adulteration.
- BUTTER.—Use of boracic and salicylic acids and injurious antiseptics in the manufacture of butter are prohibited.
- CHEESE.—Unlawful to use false brands on cheese. Brand, with the words "Wisconsin full-cream cheese," is issued to factories upon application to dairy commissioner. Skimmed cheese.—Skimmed cheese must be 10 inches in diameter and 9 inches high, and stamped "Wisconsin skimmed cheese."
- IMITATION BUTTER.—Any article made partly or wholly out of any fat or oil, etc., not from pure milk or cream, and in imitation of yellow butter, is prohibited; but oleomargarine, free from color or other ingredient to make it look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted. It shall not be sold as butter. All packages exposed for sale must be plainly marked "Oleomargarine;" signs must be displayed in selling places and on wagons. Hotels, etc., using it must notify guests. Use not permitted in charitable or penal institutions.
- IMITATION CHEESE.—Manufacture or sale of cheese made from skimmed milk with the addition of fat foreign to milk is prohibited.
- MISCELLANEOUS.—Wholesome food shall be fed to cows producing milk for retail sale. Account of daily operations must be posted in butter and cheese factories.
- PURE FOOD.—Any article of food or drink shall be deemed adulterated if any injurious or inferior substance has been added to it; if any valuable ingredient has been removed; if it is an imitation of or sold as another article; if it is diseased, infected, decomposed; if it is colored to conceal inferiority, etc. With the exception of certain ordinary foods, which shall be plainly labeled, such articles are prohibited.

WYOMING.

(No dairy laws.)

CANADA.

(For full text of law, see p. 703.)

LIST OF CONVICTIONS.

CONVICTIONS FOR SALE OF ADULTERATED MILK.

1896. Nov. 19 Andrew Niefnicker\$10 and costs Nov. 25 John E. Pfund......\$10 and costs 1897. May 22 O. M. Nelson, Amos\$25 and costs May May 25 June 22 Aug. 17 Aug. 24 Aug. 24 Aug. 31 Sept. 1 Sept. Sept. 3 Sept. 16 Sept. 20 Sept. 25 Sept. 25 Sept. 28 Oct. 23 Oct. 23 1898. Feb. 23 Feb. 23 Feb. 23 Mar. 22 C. Bart (milk from diseased cow), Milwaukee..... 50 and costs May 17 C. L. Dana (adult. with "Freezine"), Milwaukee...... 25 and costs July 12 July 12 Mrs. Mary Messerschmidt, Mt. Vernon 25 and costs July 19 July 26 July 26 S. F. Block, Fond du Lac...... 25 and costs CONVICTIONS FOR SALE OF ADULTERATED VINEGAR. 1896. Fine. Oct. *D. D. Evans & Co., Milwaukee\$10 and costs 1897. *Adolph Rosenheim. Milwaukee 10 and costs Mar. Mar. *C. Rostad, Milwaukee 10 and costs Mar. April

^{*}Sentence suspended.

April. C. A. Devener, Appleton			
April. Geo. Lausmann, Appleton			
April. Ingold Bros., Appleton			
April. Marugg & Briese, Appleton			
April. L. C. Schmidt, Berlin			
April. B. D. Fuller, Berlin			
April. Fred W. Leskey, Berlin			
April. Chas. Brunk, Berlin			
April. J. C. Briske, Berlin	10	and	costs
June. C. Nelson, Eau Claire			
June. F. N. Larson, Eau Claire			
June. F. Decremer, Green Bay			
June. W. W. Winegard, Green Bay			
- June. Edw. Vanden Braak, Green Bay			
June. Carl Koch, Menasha			
June. John Planner, Menasha			
June. F. W. Buboltz, Menasha			
Sept. C. N. Hawley, La Crosse	10	and	costs
Sept. A. M. Watson, La Crosse	10	and	costs
Sept. Bergoust Groc. Co., La Crosse			
Sept. John C. Toeller, La Crosse			
Sept. F. Gregory, La Crosse			
Nov. Wenzel Grams, La Crosse			
Nov. **Adolph Radtke, Beaver Dam	10	and	costs
1898.			
Feb. *J. Roehl & Son, Milwaukee	10	and	costs
Feb. *W. Weickhart, Milwaukee	10	and	costs
COLORED OLEOMARGARINE.			
1897.			Fine.
June 23 W. M. Jones, Oconomowoc	\$ 50	and	costs
Dec. 3 Wm. Orlebeke, Milwaukee	50	and	costs
Dec. 4 *S. Townsend, Milwaukee	50	and	costs
Dec. 4 *C. W. Howard, Milwaukee	50	and	costs
Dec. 22 John McGavock, Milwaukee	50	and	costs
1898.			
Jan. 4 Edward McGrath, Milwaukee			
Jan. 4 A. Hoffman, Milwaukee			
Jan. 13 J. A. Flom (Flom's hotel), Madison			
Jan. 13 Michael Meyers, Madison			
Jan. 13 G. E. Fess, Madison			
Jan. 13 Chas. Elver, Madison	50	and	costs
ADULTERATED LEMON EXTRACT.			
1898.		Fine.	
June 9 *David Dickson, Milwaukee\$			noet~
July 22 *Chas. Levison, Racine			
Aug. 12 J. Kaiser, Madison			
Oct. 24 *J. Michelstetter, Milwaukee	10 6	meno	bobe
Oct. 22 0. michelstettet, mitwanace	1C 5	ashe	uucu
MISCELLANEOUS CONVICTIONS.			
MISCHLIAMEOUS CONVICTIONS.			
Mch. 30, '98, I. Karger, Milwaukee, adulterated honeySentend 1898.		nenai	aded
Feb. 16 A. R. Nitz, Milwaukee, unlabeled alum bak. powder			
	1	Fine.	
	1 25 a	Fine. and c	osts
Feb. 16 W. G. Beech, Milwaukee, unlabeled alum bak, powd	25 a 25 a	Fine. and c and c	osts osts
June 9 *David Dickson, Milwaukee, unlabeled lum bak. powd	25 a 25 a 25 a	Fine. and c and c and c	osts osts
June 9 *David Dickson, Milwaukee, unlabeled lum bak. powd July 22 *Chas. Levison, Racine, unlabeled alum bak. powd	25 a 25 a 25 a 25 a 25 a	Fine. and cand cand cand cand cand cand cand c	eosts eosts eosts
June 9 *David Dickson, Milwaukee, unlabeled lum bak. powd	25 a 25 a 25 a 25 a 25 a	Fine. and cand cand cand cand cand cand cand c	eosts eosts eosts eosts

^{*}Sentence suspended. **Remitted.

FINANCIAL STATEMENT.

DAIRY AND FOOD COMMISSION.

DISBURSEMENTS FOR THE YEAR ENDING SEPTEMBER 30, 1897.

Pairy and Food Commissioner's Dept.—			Ī
Adams, H. C., com'r, salary	\$2,4 96	00	
Adams, H. C., com'r, expenses	99	20	
Chadwick, W. W., asst. com'r, salary	1,750	00	
Chadwick, W. W., asst. com'r, expenses	672	78	
Mitchell, A. S., chemist, salary	1,800	00	1
Mitchell, A. S., chemist, expenses	60	43	
Field, N. J., dairy inspector, per diem, and expenses	370	60	1
Norton, F., stenog. and confidential clerk, salary	225	00	1
Democrat Pr't'g' Co., blanks	33	47	
Democrat Pr't'g Co., report	1,699	00	†
Madison Post Office, postage	110	00	
Madison Post Office, box rent	8	00	†
Dane Co. Telephone Co., rental	24	00	1
Wis. Telephone Co., messages	32	50	1
Western Union Telegraph Co., telegrams	21	95	†
American Express Co., expressage	124	54	1
United States Express Co., expressage	93	31	ļ
aboratory			
Sargent, E. H., & Co., laboratory supplies	\$ 50	01	
Williams, E., laboratory supplies		75	
Drake Bros., laboratory supplies	1	65	·
Eissfeldt, C., Co., laboratory supplies	7	00	1
Hollister, A. H., laboratory supplies	10	46	
Madison Gas & Electric Co., laboratory supplies	9	81	
Eimer & Amend, laboratory supplies	75	00	1
Hennecke, C., Co., laboratory supplies	2	35	
Baumbach, C., Co., laboratory supplies	9	40	
<u> </u>			\$9,787

DISBURSEMENTS FOR THE YEAR SEPTEMBER 30TH, 1898.

Dairy and Food Commissioner's Department—		1
Adams, H. C., com'r, salary	\$2,511 00	
Adams, H. C., com'r, expenses	148 45	1
Chadwick, W. W., asst. com'r, salary	1,600 00	
Chadwick, W. W., asst. com'r, expenses	76 5 13	
Mitchell, A. S., chemist, salary	1,800 00	
Norton, F., stenog. and clerk, salary	900 00	
Olin, J., attorney fees	14 00	†
Field, N. J., dairy inspector, per diem and expenses.	1,563 30	
Democrat Prtg. Co., prtg. blanks	53 84	1
Madison Post Office, postage	139 00	1
Madison Post O.ce, box rent	8 00	
Dane Co. Telephone Co., rental	24 00	1
Wisconsin Telephone Co., messages	2 75	
Western Union Telegraph Co., telegrams	26 55	1
American Express Co., expressage	77 27	1
United States Express Co., expressage	67 72	
Laboratory:		İ
Vilas, Wm. F., rent	\$250 00	
Richards & Co., Ltd., mdse	64 98	
Madison Gas and Electric Co	19 12	†
Sargent, E. H., & Co	5 58	
Sheehan & Co	2 55	
Hollister's Pharmacy	3 99	
Williams, E	3 95	<i>.</i>
Eimer & Amend	40 17	†
Hussey, J	5 00	
Drake Bros. Co	4 35	1
\ <u>-</u>		\$10,100 7

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